KNOWLEDGE, ATTITUDE AND PRACTICES (KAP) SURVEY

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SUMMARY

Little is known within the South African context about the prevalence of HIV in the tertiary sector. However, regional statistics have revealed the particular vulnerability of the 15 – 35 age group, and, by implication, the vulnerability of the clientele of the higher education sector.

At a meeting between the Minister of Education, Prof. Kader Asmal, and the executive committee of the Committee for Technikon Principals (CTP) in February 2000, the Minister challenged the sector to become involved in the fight against AIDS and to develop educational strategies to contain, eventually, the greatest challenge ever to face the country.

It is against this background that Technikon Pretoria's HIV and AIDS response commenced. As service began to unfold and develop, it became increasingly clear that, while the Higher Education Programme offered support in terms of the basic minimum standards of the HIV/AIDS programme, there was a critical need for contextual/situational analyses of the Institution.

It was then that the manager of the Centre commissioned the Knowledge, Attitudes and Practices Survey in relation to HIV and AIDS. It was envisaged that the study would facilitate an analyses in terms of need and relevance and would enable the service provider's access the efficacy of service delivery. This is seen as fundamentally critical to service provision, in that the key success indicators would include an uptake of services and a reduction in infection rates, as well as addressing the stigma and discrimination associated with the disease and with HIV service provision.

The Knowledge, Attitudes and Practices (KAP) Survey is aimed at assessing the knowledge of the participants about HIV and AIDS, and determining their attitudes towards the disease and those infected and affected. It is also aimed at assessing their sexual behaviour and practices so as to determine their risk of infection. The further significance is linked to the attempt to assess current service provision, to identify possible gaps and to redress the service components in order to offer a comprehensive, relevant and sustainable service.

OPSOMMING

Baie min is bekend oor die stand van voorkoms en voorkoming van MIV/Vigs binne die Tersiëre Sektor in Suid-Afrika. Die doel van hierdie studie is 'n Kennis, Houding en Persepsie (KHP) opname binne 'n steekproef van studente aan die Pretoria Technikon (voor die amalgamasie, en die totstandkoming van die Tswane Universiteit van Tegnologie).

Die vraelys is as opnametegniek gebruik en die resultate van die studie word in die vorm van beskrywende statistiek aangebied.

Die studie vind redelike vlakke van kennis oor MIV/Vigs, maar lig ook verskeie areas uit wat verder, as deel van 'n voorkomingsstrategie, aangespreek behoort te word.

Voorstelle vir vernouiing van die kennisgapings en vir die daarstelling van strategië en voorkomingsprogramme binne die tersiëre sektor in Suid-Afrika word gemaak. Voorstelle word ook gemaak vir verdere navorsing binne die Tersiëre Onderwys-sektor in Suid-Afrika.

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CHAPTER 1: HIV/AIDS IN PERSPECTIVE

INTRODUCTION

HIV/AIDS is probably the greatest challenge that Africa has ever had to face. The global magnitude of the epidemic is estimated at 42 million people living with HIV/AIDS, based on the UNAIDS estimates of December 2002. The total cumulative AIDS deaths are 24,9 million and new infections are estimated at five million for 2002. The majority of new infections occur in sub-Saharan Africa, where the disease is threatening to wreck the economic and social structure of many countries (Mauna & Chamme, 2003:250). It is estimated that 2,4 million Africans died of AIDS in 2002. The high toll is blamed on the failure of many African governments to take steps to eradicate the disease (McQuillan, 2003:1). It seems further that current efforts to eradicate the disease are simply not equal to the need, since the threat posed to Africa continues to increase.

McQuillan (2003:1) quoted (Table 1.1) the following statistics from the World Health Organisation of people living with AIDS in the most-infected regions of the world:

Table 1.1: People living with AIDS

Most-infected regions	**Numbers (in millions)**
Sub-Saharan Africa	29,4
Latin America	1,5
Eastern Europe/Central Asia	1,2
East Asia/Pacific	1,2
North America	1,0

Source: World Health Organisation. 2002. AIDS Epidemic Update. December.

The data provided by van Rensburg et al. (2002:19) are more country specific, giving a breakdown of those countries with the largest number of HIV infections and the highest adult HIV-positive prevalence rates.

The data reveal the challenging position of developing countries in respect of those issues (see Table 1.2).

Table 1.2: Countries with the largest number of HIV infections and highest adult HIV-positive prevalence rate (December 2000)

NUMBER OF INFECTIONS (MILLIONS)	**ADULT PREVALENCE RATE (%)***
South Africa (4,7)	Botswana (36)
India (3,7)	Swaziland (25)

Ethiopia (3,0)	Zimbabwe (25)
Nigeria (2,7)	Lesotho (24)
Kenya (2,1)	**South Africa (22)**
Zimbabwe (1,50)	Zambia (20)
Tanzania (1,3)	Namibia (20)
Mozambique (1,2)	Malawi (16)
Democratic Republic of the Congo (1,1)	Kenya (14)
Zambia (0,875)	Central African Republic (14)
United States of America (0,850)	Mozambique (13)

*The percentage of the population between the ages of 15 and 49 who are HIV positive.

McQuillan (2003:1) also quotes international health experts claiming that in South Africa's neighbouring country, Botswana, 40% of the population is already infected with HIV, the virus that causes AIDS. For people aged 15-49 years, the average life expectancy is only 39,9 years. Fabricius (2003:16) quotes UNDP as estimating that AIDS will take 35 years off the life of the average Zimbabwean by 2005. This implies that the average life expectancy at birth will be just above 33 years. Without the devastating impact of AIDS, the life expectancy of the average Zimbabwean would have been over 68 years in 2005. The same report states that in **South Africa** the life expectancy at birth of the average South African would have dropped to 47,7 years in 2005.

Steinitz (2000:21) estimates an overall HIV prevalence of about 20% among sexually active adults in Namibia, another neighbouring country to South Africa.

The author also indicates 75 383 officially reported cases in Namibia between 1986 and June 2000, and also that, since 1995, AIDS has been the leading cause of death in Namibia.

Lehohla (2002:10) states that more infants are born HIV positive and that UNAIDS reported that in Southern Africa at least 20% of the people aged 15-49 are already infected. With regard to **South Africa,** van Rensburg et al. (2002:20) indicate (Table 1.3) that, in 1999, 27,1% of the young women between the ages 15-24 years were already HIV infected. The same authors report that 1 700 South Africans are being infected with HIV on a daily basis.

Table 1.3: HIV prevalence in South Africa (December 1999)

Country	Adult prevalence rate	Prevalence rate in young women (15-24 years)	Prevalence rate: Women in antenatal clinics – urban areas	Prevalence rate: Women in antenatal clinics – rural areas
South Africa	19,9	27,1	19,2	21,3

Noteworthy is that the number of South Africans that died because of AIDS before they reached the age of 50 has almost doubled since 1990. According to the president of the

Medical Research Council, Professor Makgoba, AIDS is devastating South Africa's most economically productive citizens – those aged between 15 and 49 – with more men aged between 35 and 40 dying than in any other age group in the 1999-2000 period. The death rate has risen despite better access to health care and improvements in the quality of life of most South Africans in the ten years since 1990. This has devastating implications, both for the economy and the social structure of families and for their quality of life (*Sunday Times*, 23 July 2000: 14).

A study conducted by Grundling, de Jager, Fourie, Ras and Grundling (2002) clearly indicates that on a community and an individual level, pending the development of an effective vaccine or cure for HIV/AIDS, a change in sexual behaviour would be the only means of halting the continuous spread of the disease. This also implies that higher education institutions in South Africa have a social responsibility to contribute strategically to the management and prevention of the epidemic.

THE HIGHER EDUCATION CONTEXT

Little is known in the South African context about the prevalence of HIV in the tertiary sector. However, regional statistics have revealed the particular vulnerability of the 15 – 35 age group, and, by implication, the vulnerability of the clientele of the higher education sector. Hence, the birth of a comprehensive response by the tertiary sector to the presence of the HIV and AIDS pandemic. Chetty (2000) suggests that the 1999 "Tertiary Institutions against AIDS" convened by the Department of Education marked a turning point in the engagement of educational authorities and higher education institutions in the fight against HIV/AIDS.

At a meeting between the Minister of Education, Prof. Kader Asmal, and the executive committee of the Committee for Technikon Principals (CTP) in February 2000, the Minister challenged the sector to become involved in the fight against AIDS and to develop educational strategies to contain, eventually, the greatest challenge ever to face the country.

In October 2000, Judge Edwin Cameron put a personal face to the pandemic when he disclosed his status. In his capacity as an individual living with HIV and as the chairperson of the Council of the University of the Witwatersrand, he echoed the Minister's sentiments. His message was clear and forthright: Higher education in SA not only has to take joint responsibility to join the fight against the AIDS pandemic, it also has to take up a prominent leadership position in this fight.

In answering the question as to why HIV/AIDS should be of particular relevance to higher education, Chetty (2000) suggests the following:

- HIV/AIDS is a developmental issue, not just a health issue
- HIV/AIDS affects not just individuals, but also organisations and systems

- HIV/AIDS affects human resource development
- Preventing the spread of HIV/AIDS and managing its impact require knowledge
- Successful institutional and societal responses to HIV/AIDS require leadership

After much reflection and lobbying within the sector, the Higher Education HIV/AIDS Programme took shape. It was supported by a sector survey undertaken on behalf of SAUVCA. The survey identified an adhoc response within the sector at various levels of development, and established support for the sector to have a unified response to the pandemic.

The programme is undertaken as a partnership between the Committee for Technikon Principals (CTP), the Department of Education (DOE) and SAUVCA, and is supported by donor funding from the Department of International Development and Island Aid.

TECHNIKON PRETORIA – HIV AND AIDS RESPONSE

It is against this background that Technikon Pretoria's HIV and AIDS response commenced. Its initial development was the result of the initiative of the current Vice-Chancellor, who facilitated the establishment of the stand-alone AIDS Consultancy Centre in 2001. Funding was allocated for the employment of the Centre Manager, and the mandate for HIV and AIDS service delivery to staff and students was secured.

It was at that point that the broader Higher Education HIV and AIDS programme was formalised, and, therefore, the Technikon's responses began to receive support from that initiative.

As service began to unfold and develop, it became increasingly clear that, while the Higher Education Programme offered support in terms of the basic minimum standards of the HIV/AIDS programme, there was a critical need for contextual/situational analyses of the institution. Students and staff demographics needed to be unpacked, as well as the various peculiarities that were noted in the course of the daily interaction with the Centre's clientele. The Centre offers a professional counselling service to its clients focussing primarily on HIV pre, post and generic counselling, as well as counselling related to high-risk behaviour. All clients that visit the Primary Health Care Unit for services related to STI's, MAP, TOP and burst condom are referred to the HIV unit for counselling.

Peculiarities noted included:

- Students were engaged in high-risk behaviour
- First-year students appeared to be more vulnerable
- It appeared as if white students and staff did not perceive themselves to be at risk
- African students were more inclined to utilise services

- There was a lack of knowledge in terms of the link between HIV and sexually transmitted infections (STIs)
- Large numbers are in need of the morning after pill (MAP)
- An increase in unwanted pregnancies

It was then that the manager of the Centre commissioned the Knowledge, Attitudes and Practices Survey in relation to HIV and AIDS.
It was envisaged that the study would facilitate an analyses of these perceptions and would enable the service providers to either accept or reject them. This is seen as fundamentally critical to service provision, in that the key success indicators would include an uptake of services and a reduction in infection rates.

It has become increasingly clear that a no response stance or a fragmented and/piecemeal response would have a detrimental impact on the institution and in fact on the higher education sector in general. High infection rates amongst the youth have been extensively documented and South Africa in particular indicates an almost constant vulnerability of its young heterosexual population. This sector of the population reflects the very clientele of higher education and in the long term the potential economically active in terms of the country's labour force.

Hence the scenario predicted for a no response approach is one that not only puts the higher education sector out of business, but one that could impact on the developmental gains of a country.

PURPOSE/SIGNIFICANCE OF THE STUDY

The Knowledge, Attitudes and Practices (KAP) Survey is aimed at assessing the knowledge of the participants about HIV and AIDS, and determining their attitudes towards the disease and those infected and affected. It is also aimed at assessing their sexual behaviour and practices so as to determine their risk of infection.

The further significance is linked to the attempt to assess current service provision, to identify possible gaps and to redress the service components in order to offer a comprehensive, relevant and sustainable service.

EPIDEMIOLOGY AND TRANSMISSION

HIV (human immuno-deficiency virus) is a virus found only in human beings, which attacks and slowly damages the body's immune system so that the body cannot defend itself against infections and diseases. HIV causes AIDS (acquired immune deficiency syndrome), which represents a group of particular medical conditions known as AIDS-defining conditions or

illnesses (like “cold sores”, swollen lymph nodes, shingles, skin rashes and irritations, occasional fevers, nail infections, weight loss, brain infections and tuberculosis (Barrett-Grant, Fine, Heywood & Strode, 2001:10). HIV is transmitted through infected blood or bodily fluids.

According to the same authors, the following bodily fluids are applicable:

- Blood
- Semen
- Vaginal and cervical fluids
- Breast milk

The HI virus is usually transmitted when one of these fluids enters another person’s body. Transmission mostly occurs during unprotected anal or vaginal penetrative sexual intercourse or when infected blood or blood products are injected, such as drug users sharing the same injecting equipment. Prenatal transmission may also occur from an infected mother to her baby during pregnancy or delivery. There is no risk of contracting the infection through human contact or through kissing, touching or handling objects used by an infected person or through sharing offices or toilets. There are also no known cases of AIDS having been transmitted by mosquitoes, the sharing of public baths or swimming pools, water or food, according to du Pisani (2000:52).

Types

The diversity of HIV epidemics around the world is becoming more apparent. It also seems that the epidemic does not follow the same course in all societies. In 1983, French researchers discovered a new virus, HIV-1, which causes AIDS.

In 1985, a second type, namely HIV-2, was discovered in West Africa (Senegal), which seems to be less easily transmitted and harmful than HIV-1. Scientists later discovered that there are also many different strains or subtypes of HIV. In South Africa, subtype C is most common (Barret-Grant et al., 2001:11).

Stages

HIV infection typically takes many years to develop into symptomatic illnesses and, therefore, the impact of the epidemic is not seen for some time after infection levels have begun to rise. The importance of developing models that could estimate and project the illness cannot be underestimated.

An important model would be the means of understanding HIV in terms of the stages in which it operates. According to Barrett-Grant et al. (2001:30), the following stages can be identified:

- **The window period** – This is defined as the short period between infection by HIV and when the person first develops antibodies that can be picked up by standard HIV

tests. Because it can take up to three months after infection for some people to develop antibodies for HIV, a person may test HIV negative during this time.

- **Sero-conversion** – This happens when a person changes from being HIV negative to being HIV positive. This is when there are enough HIV antibodies in the blood to be detected in a standard HIV test.
- **Asymptomatic stage** – This is the period between becoming infected with HIV and becoming ill. This stage may range from weeks to many years – typically from eight to ten years.

VULNERABILITY TO HIV INFECTION

Sexual practices are considered to be the main risk factor that places a person at the risk of HIV infection (Barrett-Grant et al., 2001:32).

Grobler (2000:35) states that young people – especially teenagers – are still in the stage of "identity formation". This stage is characterised by discovery and excitement in which the youth is in need of love, care and a commitment in individual relationships. If the need for emotional gratification is not fulfilled, a gap develops in a person's emotional accoutrement, which could give the person a predisposition to sexual relationships to fill the gap. According to van Rensburg et al. (2002:31), youth is also the time when gender roles, sexuality and attitudes towards women are formed. Furthermore, apart from physiological vulnerability, adolescents, in particular, are very susceptible to peer pressure, are more inclined to engage in risk-taking behaviour, are less able to negotiate safe sex practices, and have difficulties accessing health services and information.

Furthermore, according to Steinitz (2000:22) strong gender imbalances exist in the age-specific profile of HIV infections. Of these, younger women and girls are the most vulnerable. Van Rensburg et al (2002:24) indicate that women are most at risk between the ages of 15 and 20, while men are most at risk approximately five years later, i.e. between the ages of 20 and 24. HIV Insight (2001) is of the opinion that the fact of women being infected at an earlier age may be attributed to both biological and cultural reasons. For these authors, age mixing is a critical factor. It seems that one can expect to see young girls having sex with older men, who have been sexually active for many years, to a much larger extent than young men having sex with older women. Young girls are thus more likely to be infected than young men.

MANAGEMENT AND PREVENTATIVE METHODS

It is of extreme importance that knowledge about HIV/AIDS be conveyed in such a way that the target group understands the message, because knowledge is only useful if it is understandable (Grobler, 2000:40). Thus, if prevention campaigns do not take the context of the lives of the youth into account, the youth will not relate to the message. Knowing the facts

may be an essential prerequisite, but is definitely not sufficient to change the sexual behaviour of the youth. Lehohla (2002:11) is of the opinion that although young women are exceptionally vulnerable to the disease, millions of young African women are dangerously ignorant about HIV/AIDS. This statement is supported by Katjire, Langa, Siwa, Mbuche and Tjongarero (2000:75), who state "… information about a disease and how it spreads does not necessarily increase the likelihood that one will take preventive action or change one's behaviour". According to Grobler (2000:40), a solution may be to involve the youth in translating the planned messages into understandable concepts. These researchers would like to add that, over and above understanding the principle, understanding the motivations for certain behaviours is also required.

In an unpublished document, the South African Department of Health (2001) provides information on indicators used in HIV surveillance in the last couple of years, which allow for comparison across time and between geographical areas. Most of those indicators should, according to the Department, be presented by age and sex, and some could be presented by other variables, such as a risk category. The major indicators are summarised in Table 1.4.

Table 1.4: Major indicators used in HIV surveillance

1. Biological indicators • HIV prevalence • STD prevalence • Hepatitis B and C prevalence • Number of adult AIDS cases • Number of paediatric AIDS cases
2. Behavioural indicators • Sex with a non-regular partner in the last six months • Condom use during last sex with a non-regular partner • Youth: Age at first sexual intercourse • Drug injectors: Reported sharing of unclean injecting equipment • Sex workers: Reported numbers of clients in the last week
3. Socio-demographic indicators • Age • Gender • Socio-economic or educational status (occupation or years of schooling) • An indicator of residency or migration status • Parity (for antenatal sites) • Marital status

Normally HIV and STD prevalence will be reported for the youngest sexually active groups, namely persons who are 15-24 years of age.

HIV testing

HIV prevention and treatment depends largely on people **wanting** to have an HIV test. The aim of HIV testing is to pick up HIV antibodies in the person's blood. Currently, two categories of tests can be identified (Barrett-Grant et al., 2001:20-21):

- Rapid tests – These tests are cheap and rapid, easy to use and very accurate, can pick up whether there are HIV antibodies in the blood or saliva, and the result is available within about 15 minutes.
- PCR tests (polymerase chain reaction tests) – These are very sensitive tests that test for HIV rather than HIV antibodies, and can be used to find HIV even when the sample of body fluid is very small. The PCR test is very useful for emergency situations, such as a sexual assault, because one can test even a tiny sample of blood to determine if the assaulter is HIV positive and because it can be determined whether the person who has been assaulted has HIV in his or her blood.

Condom use

According to Marunda and Chamme (2003:250), countries that have embraced the use of condoms have found a significant drop in the rate of infection by AIDS and other sexually transmitted diseases. The authors state that, in Uganda, the HIV incidence dropped from 8,0 per 1 000 in 1990 to 5,2 per 1 000 in 1999.

In Thailand, "a 100% condom" campaign resulted in a significant reduction in HIV prevalence among sex workers – from 30% in 1993 to 18% in 1995.

The condom stands a better chance of success because it does not call on people to change their sexual behaviour, as such. People could still have sex as often as they used to, the only change being how they do it (Marunda & Chamme, 2003:251). However, research by Nasheya (1999:31), as quoted by Grobler (2000:39), indicated that sexually active people might experience technical problems with condoms. In the mentioned research, the respondents indicated the following:

- A condom can get lost inside a woman
- Condoms can fall off
- Condoms often burst
- Condoms make sex less enjoyable
- Condoms are against God's will
- People are ashamed and embarrassed to use condoms
- Women who initiate using a condom are trying to gain power
- Women who carry condoms are loose
- If women want to use a condom, a man should give the final decision

Attitudes associated with condom use can also present as barriers to correct use and or the decision to use them.

Abstaining from sex

Supporters of this view believe that the elimination of HIV/AIDS requires a moral rather than a medical or condom solution. Advocating abstinence rather than condom use should be emphasised. The view of religious leaders is often that promoting condom use encourages sins, such as adultery and practising sex at an early age (Marunda & Chamme, 2003:255-256).

Educating sexually active youth

The biggest challenge in education, according to Lehohla (2002:11), is the disturbingly high frequency of sexual activity among teenagers in secondary and intermediate education. This will force decision-makers to face the reality that, while there may be moral questions about teaching safe sex to children, they are sexually active, whether or not one approves.

CONSEQUENCES OF HIV INFECTION

HIV has convincingly established itself as a bio-psych-social-developmental disease…

Lehohla (2002:8) indicates the following effects of HIV/AIDS on human development in the SADC region:

- The pandemic has multiple and negative effects on the demand for education, the supply of education, and the quality and management of education in individual learning posts and the whole region.
- There exists uncertainty about the future demand for education in the light of possible and apparent declines in the number of children of school-going age. Enrolments in secondary, intermediate and tertiary education may also be negatively affected by the demise of breadwinners in households.
- The quality of learning outcomes and education will be affected by several compounding factors, which will emerge as the pandemic takes a deeper hold in the region. In the 2001 AIDS epidemic update, UNAIDS reported that, in 1999 alone, an estimated 860 000 children lost their teachers to AIDS in sub-Saharan Africa. Fabricius (2003:16) quotes UNDP to the effect that, in 1998, Zambia lost 1 300 teachers to the disease – two-thirds of those trained each year. The education systems also have begun experiencing problems resulting from the loss of inspectors, teachers, education officers, planners and management personnel.
- UNAIDS estimates that there would be a less qualified teaching force in time, as trained and experienced teachers are replaced with younger and less qualified teachers.

As a group of countries, the life expectancy figures for Southern Africa are the lowest in the world, and this is having a major impact in each country on the UNDP Human Development Index (HDI). The HDI compares the quality of life in the different countries of the world. It was

reported that South Africa had fallen 27 places in the HDI rankings since 1990, to its present 111th position – mainly because of AIDS (Fabricius, 2003:16).

CONCLUSION

As HIV/AIDS infection rates continue to rise in the sub-Sahara African countries and in South Africa, it is important that decision-makers take note of how communities and individuals are responding to the disease. This includes the student population of Technikon Pretoria. It is assumed that, until an effective vaccine or cure for HIV/AIDS is found, responsible sexual behaviour is the only means of averting the continuous spreading of the disease.

CHAPTER 2: RESEARCH METHODOLOGY

INTRODUCTION

Evaluation of the sexual behaviour, understanding the behavioural patterns and the information needs of students are an integral part of this research. To achieve the objectives of the research, it was necessary to use multi-dimensional criteria to measure and identify the sexual behaviour of the students.

STATEMENT OF THE PROBLEM

Whereas HIV and AIDS are by nature health-related problems, it is common knowledge that the fight against the pandemic and its manifested effects has to be based on the partnerships of all sectors of society. Relatively little research has been done on the impact of AIDS on the educational sector and the implications of its effects on the current and future supply of education

(Lehohla, 2002:5-6). Furthermore, it is important that institutions of higher education adopt policies regarding HIV/AIDS that are aligned to the Constitution of South Africa and that recognise the basic rights of the people of South Africa.

In addition, the fact that HIV predominantly affects people between the ages of 14 and 35 years means that students at tertiary institutions are directly affected. An immediate response to this would be to look at what tertiary education institutions could do to make students more aware of the prevention strategies and care available to persons infected with HIV.

The need for improved and qualitative data has been well documented by Professor M. Kelly, who investigated the impact of HIV and AIDS in higher education institutions within the African context.

MOTIVATION FOR THE STUDY

Lehohla (2002) stressed at a meeting of the SADC Ministers of the Human Resource Development Sector, that the SADC member countries should combine efforts to commission studies on the impact of HIV/AIDS on education and its implications for education, build capacity for teaching and the research and management of HIV/AIDS programmes,
strengthen multi-sectoral initiatives, and ensure the infusion of HIV/AIDS issues in all human resource development strategies under the protocol on Education and Training at national and regional levels. Otaala (2000:3) provides three principal reasons why institutions of higher education should take the phenomenon of HIV/AIDS seriously and why those institutions should act and react to it:

- The vulnerability of those institutions to the many adverse impacts of HIV/AIDS.

- Because of this vulnerability, those institutions need to take those impacts into account in their planning, while at the same time taking steps aimed at AIDS prevention and control.
- It is the responsibility of institutions of higher education – through knowledge dissemination, research and advisory services – to contribute to stemming the spreading of the disease and to mitigating its impact within the larger society of which those institutions form part.

The aim of this investigation is primarily to determine, first, which of the registered students studying at Technikon Pretoria are most at risk to become HIV infected; second, to determine which behaviours put them at risk; and, third, to determine their understanding of their basic rights as humans, in the workplace and in a relationship. Finding answers to these issues would enable the institution to generate an appropriate response to HIV in order to contribute to keeping infection rates low, and to direct efforts at slowing down the spread of the virus

SCOPE OF THE RESEARCH

This research provides socio-demographic, knowledge and behavioural information regarding registered students of Technikon Pretoria, since it relates to various aspects concerning HIV and AIDS. The specific aspects to be analysed are described in Table 2.1.

Table 2.1: Aspects analysed in the survey (knowledge, attitudes and practices/behaviour)

1. Knowledge profile of students • Understanding the difference between HIV and AIDS • Perceived highest-risk age groups • Identification of an HIV-positive person • Knowing one's HIV rights
2. Sexual intercourse profile of students • Engagement in sexual intercourse profile of students • Enjoyment profile • Expectations of partner • Popularity profile
3. Condom use • Condom use with last sex partner • Reasons for not using condoms • Decision node in condom use • Condom use as it relates to type of sexual behaviour • Ease of introducing condom use into relationships • Sourcing for condoms

4. **HIV testing**
    - Awareness of the AIDS Centre on campus
    - Information requirements

TARGET POPULATION

The population under investigation was all students registered at Technikon Pretoria, South Africa (Pretoria Campuses) in 2003/2004. The number of registered students amounted to 25 529 students, at the time of the sampling.

DESCRIPTION OF THE SAMPLE FRAME

According to Martins, et al. (1999:252), the sample frame represents a record of all the sample units available at a given stage in the sampling process. In the case of this sample, a list of registered students was obtained from the Management Information System of Technikon Pretoria. Respondents were randomly selected from the Arcadia Campus, Arts Campus and Technikonrand Campus (main campus). No respondents from the Polokwane and Nelspruit campuses were considered, due to their geographical location and the perceived differences in the target groups. This represents a total sample frame size of 25 529, from which the final sample was selected. The sample frame constituted the following numbers, as explained in Table 2.2:

Table 2.2: The sample frame

Population	**Female**	**Male**	**Total**
Asian	103	228	331 (1,3%)
Black	9 221	8 682	17 903 (70,1%)
Coloured	146	199	345 (1,4%)
White	2 820	4130	6 950 (27,2%)
Total	12 290 (48,1%)	13 239 (51,9%)	25 529 (100%)

It is clear from the table that the black and white population groups constitute most of the registered students studying at Technikon Pretoria.

SAMPLING

The aim of sampling is always to ensure that the actual acquired statistics will be as close as possible to the population parameters in order to be able to make generalisations (Black, 2002:59).

SELECTING THE SAMPLING METHOD

Stratified sampling

The stratified sampling method, which forms part of the family of probability sampling methods, was used. Black (2002:52) explains this method of sample selection as "…taking random samples from various strata in society, such as men and women. Different subpopulations are thus defined within a larger population". The result is that the researchers are able to divide the target population into relatively homogeneous subgroups (Hair et al., 2003:216).

According to Martins et al. (1999:257), this has a big advantage, in the sense that in a probability sample the sample error for a given sample can be calculated statistically. In this stratified sample, the population of registered students was divided into mutually exclusive strata according to campus, race and gender. Simple random sampling was conducted within each stratum. The stratified sampling method also allowed the researchers to:

- Draw the actual sample in a disproportional manner to ensure that each respondent had a known chance to be selected in each stratum. Yet, the chance to be selected in one stratum differed from the chance to be selected in another stratum. However, the chance was equal for all elements in a specific stratum.
- Study the heterogeneous registered student population of Technikon Pretoria in terms of the qualities to be investigated by dividing the population into more homogeneous groups with regard to those qualities, and, in so doing, enhancing the precision or reducing the sample error in two ways, namely:
    - Firstly, making sure that that the various elements of campus, race and gender were included in the sample in their correct proportions.
    - Secondly, the variability of the qualities being investigated decreased within the various strata as the qualities of the elements in a specific stratum corresponded to the stratum qualities.

Sample size

The next aim was to ensure that the sample would be representative of the registered Technikon Pretoria student population. The number of respondents selected from each stratum was proportionate to the size of each stratum relative to the overall sample size. The formula n = SQR (20*N) was used to determine the sample size for each stratum, where N is the total obtained in a specific stratum.

For example:

1. Total number of female Asian students is 103 (for all three campuses).
2. To find out how many should be included, the researchers used

    N=SQR (20*103)= 45.38722 = 46 (rounding up)

3. Lastly, 46 were proportionally divided among the campuses.

Using the stratified sampling method provided the following advantages, according to Hayes (1997:90):

- Better precision with the same overall sample size.
- Estimations of population parameters can be obtained for each stratum.
- One can focus on a particular sample in which one is interested.

Table 2.3 indicates the specific sample size selected. The selected sample represents 6,28% of the sample frame.

Table 2.3: Composition of the selected sample

	Asian		**Black**		**Coloured**		**White**		**Total**
Campus	F	M	F	M	F	M	F	M	
Arcadia	7	5	51	32	5	4	44	20	168
Arts	6	2	9	12	5	2	64	25	125
Technikonrand	33	61	370	373	44	58	130	242	1311
Total	46	68	430	417	54	64	238	287	1604

DESCIPTIVE RESEARCH METHOD

The main purpose of the research was to describe the behavioural patterns and preferences of Technikon Pretoria students. According to Zikmund (2003:55), the descriptive research method, in this case, provides the researchers with an excellent opportunity to find answers for questions pertaining to *who, what, when, where* and *how* questions. It also enables the researchers to segment and target specific markets.

In this research, it was, amongst others, important to differentiate between age groups and the male and female populations. This research approach was also appropriate, since the researchers could build on some previous understanding of the research problem. The main purpose, therefore, was to find conclusive evidence of differences in the behaviour, perceptions, expectations and characteristics of specified subgroups.

DATA COLLECTION

Survey

A structured survey method was used to collect the data. According to Black (2002:44), the survey method allows one to describe the characteristics of a single group of subjects in terms of pre-described characteristics.

Administration

The first step was to ensure confidentiality, anonymity and ethics in conducting the research. The measuring instrument was submitted to the Ethical Committee for advice, evaluation and approval, to ensure that the survey would comply with all ethical considerations and provide

all respondents involved with the necessary protection. Secondly, confidentiality was guaranteed, implying that no respondent could be identifiable and that respondents were protected against any adverse consequences. Allowing them to complete the questionnaire anonymously and ensuring that no respondents could be identified through any coded numbers or names on the questionnaires achieved this.

In view of the sensitivity of the study and the questionnaire, it was decided that trained field workers be used to collect the data. The Technikon has a Peer Education Programme as a component of its HIV and AIDS strategy. These peer helpers have been trained and skilled, and know how to render HIV/AIDS services; hence their understanding of the many dynamics surrounding HIV was a critical asset to this process.

The researchers interviewed and selected the fieldworkers and exposed them to a three-day training session. The aim was to acquaint them with the purpose of the study and to help them understand the sampling exercise and role-plays, so as to let them be prepared for possible resistance/sensitivities on the part of respondents. The fieldworkers were exposed to a process of continuous assessment in the course of the training, and, upon completion of this phase, ten of them were selected.

A further two individuals (postgraduate students) were recruited to serve in the capacity of supervisors. Subsequently, the group was divided into two, with five fieldworkers allocated to each supervisor.

The supervisors were also responsible for quality checking the questionnaires on completion. Various other checks were introduced to ensure the quality of the data received. The research team and the fieldworkers met on a daily basis to discuss and resolve any difficulties that arose in the course of the data collection.

On completion of the knowledge, attitudes and practices (KAP) survey, a session was held with all twelve fieldworkers to reflect on their experiences of being involved in a survey of this nature. This information was obtained to assist researchers in follow-up research projects or those planning similar research. The fieldworkers agreed that, in most instances, there was no hesitation among respondents when approached to fill out the questionnaire.

However, the following points were highlighted as problematic:

- Asian and coloured respondents were difficult to find – possibly because of their small number in terms of the total student population.
- Some Asian and coloured students had religious objections against filling out the questionnaire.

- It was found that black female students were particularly shy when filling out the questionnaire. Some thought the questionnaire was a "sex quiz," while others, incorrectly, assumed that being approached implied that they were HIV-positive. In some instances, this misconception led to verbal abuse.
- Students across the board indicated that it took to long to fill out the questionnaire.
- It seems as if open-ended questions were problematic, in that the students often did not complete them.
- The cover letter, in which the Rector of Technikon Pretoria briefly explained the survey and motivated students to participate, was often not read. Some respondents were offended by the word "unmarried" in the biographical details section of the questionnaire and said that they would have preferred "single." The same applied to "white" – some white respondents said that they also regard themselves as "African."
- Although being told not to do so, some students wanted to discuss the questionnaire with one another. Some respondents – especially males – joked about the age at which they became sexually active. Students who had been approached once, complained when targeted for a second or third time. This especially occurred towards the end of the survey.
- Fieldworkers cited uncertainty among – especially white – students on how one contracts HIV/Aids as a concern. There was some confusion and arguing whether, in fact, kissing, sharing of cutlery and toothbrushes, etc. could lead to one becoming HIV positive.

Many respondents expressed the need for more HIV-positive people to disclose their status and called it the "real stuff."
Respondents at the Arcadia and Arts Campuses felt left out with regard to HIV/Aids activities and expressed the need to become peer helpers and peer educators. Some respondents at Technikon Pretoria's main campus said that the AIDS Centre should be more visible.

Most of the fieldworkers said that being involved in the survey was a "great" experience. The fieldworkers and supervisors were given incentives in terms of payment, but their commitment to the study was unquestionable.
This process is recommended for future studies, in view of the fact that a 100% response rate was recorded.

Data Analysis

Descriptive analysis

The first form of analysis that was used was a descriptive analysis whereby raw data was transformed into a form that was easy to understand and interpret. The most common methods that were used, were frequency distributions and cross tabulations. The frequency-

distribution approach was followed to enable the researchers to find answers for questions based on a single variable. The objective of a frequency table is to display the number of responses associated with each value of a specific variable (Hair et al., 2003:232).

The purpose of the cross tabulations was to enable the inspection of differences among groups, trying to spot differences and make comparisons between the groups. Zikmund (2003:476) is of the opinion that cross tabulations is an excellent way to help determine the form of relationship between two variables.

Measuring reliabilities

In general, the concept of reliability refers to how accurate, on average; the estimate of the true score is in a population of objects to be measured. Thus, broadly speaking, reliability is the degree to which measurements are free from error and therefore yield consistent results (Zikmund, 2003:300).

Data Editing

Data were manually keyed directly into the database. The researchers also checked 15% of the coded questionnaires, as well as the actual database, for possible coding or data entry errors. The questionnaires and data entries to be checked were selected in a systematic, random sampling process.

Missing data were not replaced in the data analysis phase. In the factor analysis and in the discriminant analysis, observations with missing values were excluded from calculations. This procedure is permissible, according to Hair et al. (2003:231).

CONCLUSION

A survey was conducted amongst 1 604 students from three campuses of Technikon Pretoria. The sample is considered to be representative of the composition of the student population. Great care was taken to ensure the validity and credibility of the data, due to the sensitivity of the subject matter.

CHAPTER 3: DATA ANALYSIS AND INTERPRETATIONS

INTRODUCTION

This chapter summarises the research results based on the data obtained from the survey. With regard to the variables where significant differences were found with regard to the responses, such differences are illustrated by means of tables and figures. For variables where no significant differences were found in response distributions of the respective groups, a breakdown of results into different groups is omitted.

DATA ANALYSIS

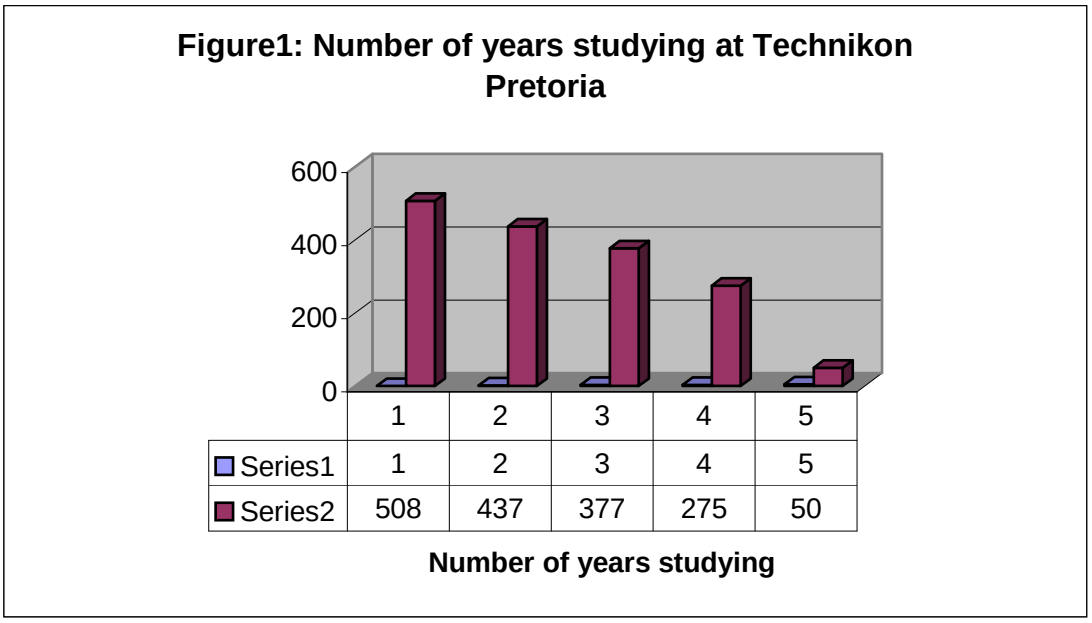
DEMOGRAPHIC PROFILE OF RESPONDENTS

Table 3.1: Composition of students studying at Technikon Pretoria

	V2 No.of years studying					Total
	1	2	3	4	5	
V1: No. Of years studying 1	70	56	44	23	7	200
2	46	27	33	28	3	137
3	392	354	300	224	40	1310
Total	508	437	377	275	50	1647

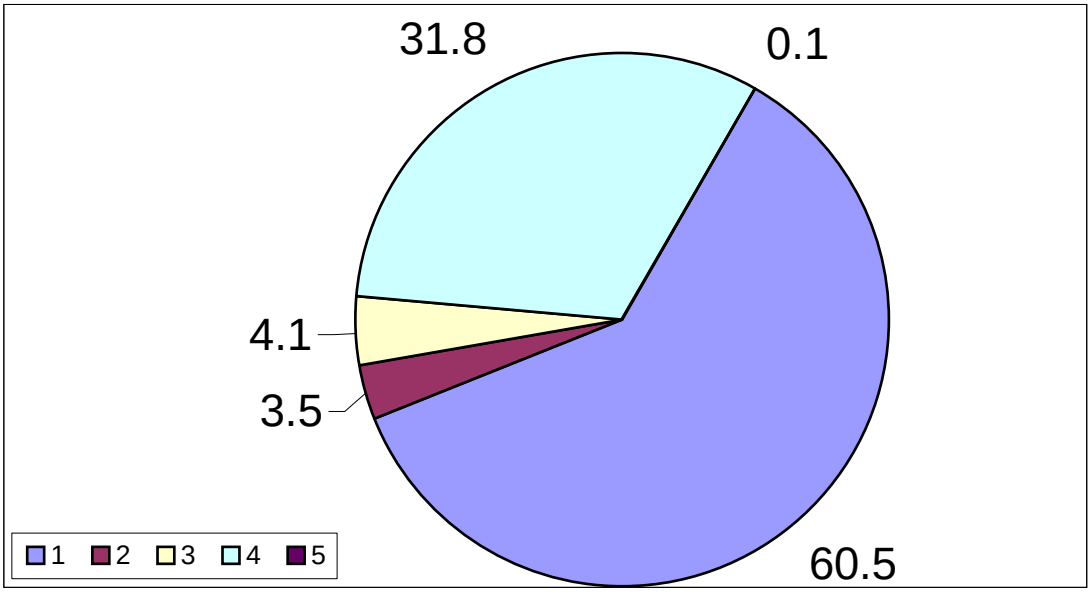
A total of 1 647 respondents were willing to complete the questionnaire. This represents a response rate of 102,6 %. Of the respondents, 79,5% (n=1310) were studying at the main campus (Technikonrand Campus), 12,14% (n=200) at the Arcadia Campus and 8,3% (n=137) at the Arts Campus. Of these students, 30,8% (n=508) were first-year students, 26,5% (n=437) second-year students, 22,9% (n= 377) third-year students, 16,7% (n = 275) fourth-year students and 3,0% (n= 50) students in their fifth year of study at Technikon Pretoria. Figure 3.1 gives a profile of the number of years students studied at Technikon Pretoria.

Figure 3.1: Number of years studying at Technikon Pretoria



Most of the respondents, 98% (n=1637) were unmarried, whilst just 2% were either married or divorced (n1= 28; n2 = 2), implying that this sample is primarily a representative description of **unmarried student youth**. The racial composition of the sample is representative of the population composition on the campus. Figure 3.2 gives insight into the racial sample composition.

Figure 3.2: Racial composition of sample



Where:

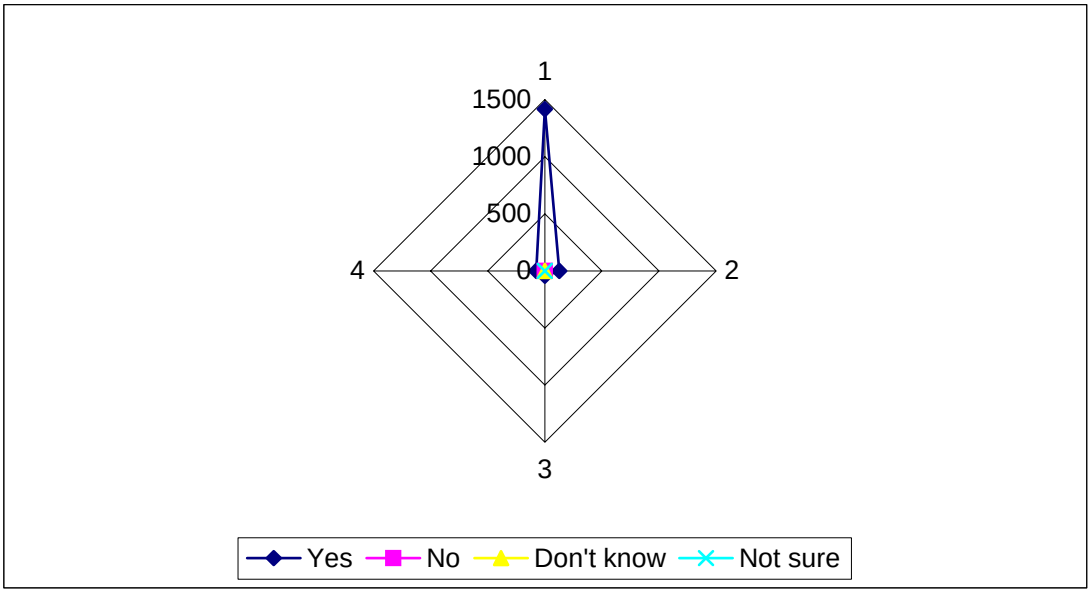
1 = African; 2 = Asian; 3 = Coloured; 4 = White; 5 = Missing values

KNOWLEDGE PROFILE OF RESPONDENTS

Understanding the existence of a difference between HIV and AIDS

The vast majority of respondents (84,9%; n=1418) indicated that there exists a difference between HIV and AIDS. Only 7,5% (n=126) of the respondents were of the opinion that there was no difference between HIV and AIDS, while the rest of the respondents (7,1%; n=118) did not know or were unsure (see Figure 3.3).

Figure 3.3: Knowing the difference between HIV and AIDS



Where:

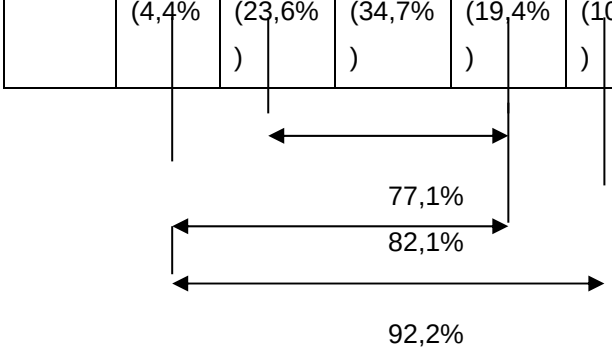
1 = Yes** 2 = No 3 = don't know 4 = Not sure

Perceived highest age risk groups

A total of 92,2% of the responses indicated that people younger than 35 years of age had the biggest chance to be infected by the HI virus, the greatest vulnerability being in the age group of 15 years to 30 years. This perception was consistent in all the race groups. The age group up to 19 years old may be considered to be a moderate potential, moderate-risk age group if the data are brought in relation with Table 3.2: Sexual intercourse at different ages. On the other hand, the age groups over 20 years should be considered high potential, high-risk age groups with regard to HI infection.

Table 3.2: Cross tabulation between race and perceptions of HIV/AIDS age vulnerability

	-15 Y	15Y-19Y	20Y-25Y	26Y-30Y	31Y-35Y	36Y-40Y	41Y-45Y	+45Y	Total
African	76 (3,0%)	592 (23,5%)	822 (32,7%)	504 (20,0%)	293 (11,6%)	126 (5,0%)	64 (2,5%)	40 (1,6%)	2517 (100%)
Asian	4 (3,6%)	29 (26,2%)	43 (38,7%)	22 (19,8%)	9 (8,1%)	2 (1,8%)	1 (0,9%)	1 (0,9%)	111 (100%)
Coloured	6 (3,7%)	37 (22,8%)	52 (32,1%)	35 (21,6%)	15 (9,3%)	7 (4,3%)	5 (3,1%)	5 (3,1%)	162 (100%)
White	82 (7,9%)	247 (2,7%)	411 (39,6%)	182 (1,5%)	68 (6.5%0	26 (2.5%)	12 (1.2%)	11 (1.1%)	1039 (100%)
Total	168 (4,4%	905 (23,6%)	1328 (34,7%)	743 (19,4%)	385 (10,1%)	161 (4,2%)	82 (2,1%)	57 (1,5%)	3829 (100%)

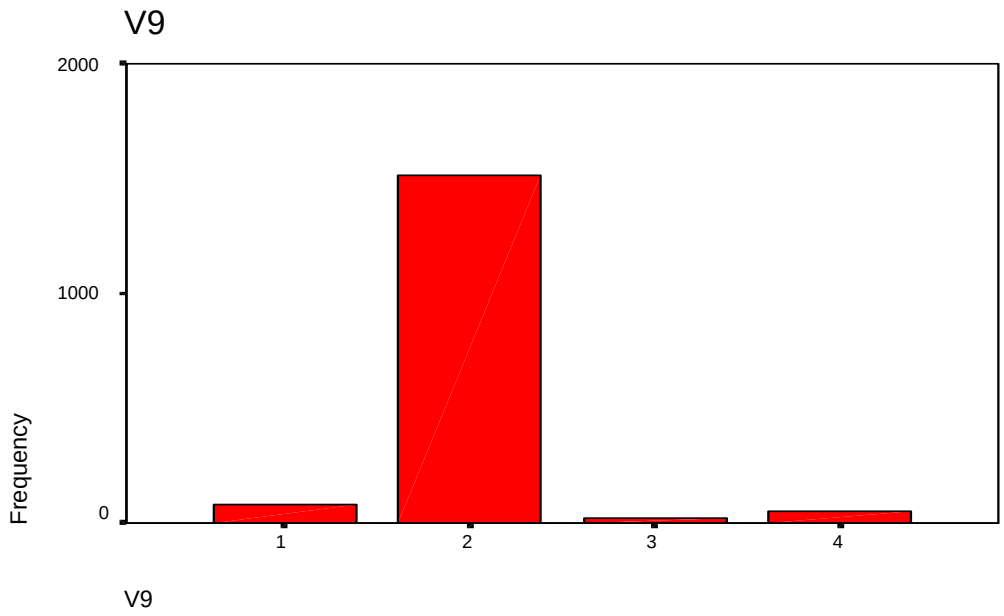


These perceptions differ somewhat from the realities of the South African situation, since van Rensburg et al. (2002:27) had found that of the 4,7 million South Africans infected with HIV by the end of 2000, with a prevalence rate of 16%, more than 50% were aged between15-24 years, with a prevalence rate of 16% in the 15-19 years group, in 2000. Thus, Table 1 may be indicative of the existence of denial amongst the youth respondents that they may be a high-risk or vulnerable group. On the other hand, the same authors also reported (2002:27) that the annual zero-prevalence survey among women attending antenatal clinics showed that HIV prevalence among teenagers did not increase over the past three years, which suggested a more positive change in sexual and reproductive health behaviour in teenage women than in any other age category. As the awareness campaigns have mostly targeted the youth category up to now, it may well be that it is beginning to bear fruit – at least in the category of 15 to 19 years. This may also give some evidence why respondents see the older youth groups as higher risk groups.

Identification of an HIV-positive person

A total of 90,8% (n=1517) of the respondents indicated that one couldn't identify an HIV positive person by simply looking at the person (see Figure 3.4). This reflects a good understanding of the fact that it is not possible to identify an HIV positive person by visual appearance. However, this percentage increases slightly to 91% when it is compared with the question "Do you have a friend or family member who is HIV positive?" The change in percentage is, however, not significant (see Table 3.3).

Figure 3.4: Identification of an HIV-positive person by visual appearance

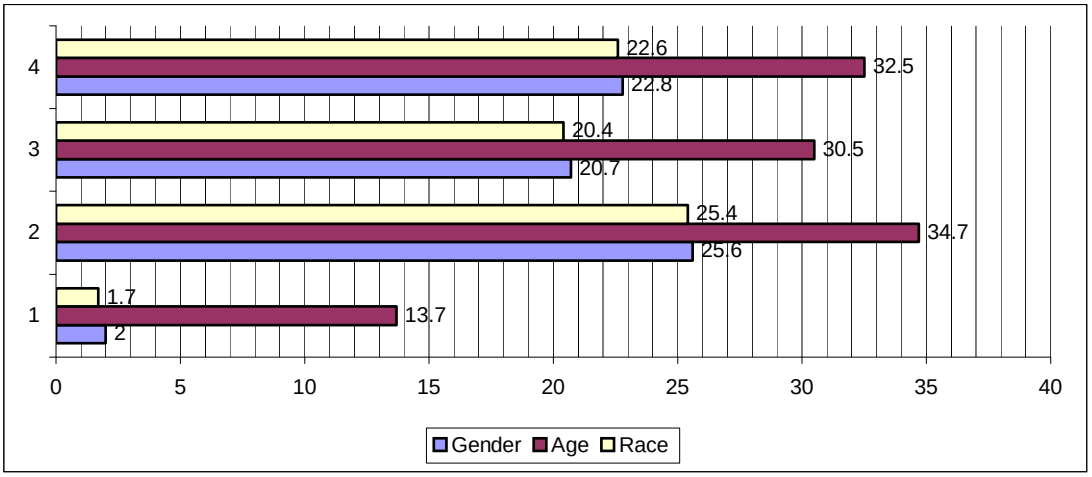


In relating visual appearance and having a HIV positive friend/family member, a total of 13% (n=214) of the respondents indicated that they had a friend or family member who was HIV positive. This percentage is below the estimated HIV infection rate in South Africa. This percentage is probably an underestimation of the true infection rate, since 27>9% of the respondents (n= 461) indicated that they did not know whether they had a friend or family member who is HIV positive.

Knowing one's HIV/AIDS rights

A significant percentage of respondents did not answer the questions relating to knowing their HIV/AID rights. The category "Knowing your HIV/AIDS rights as a potential employee" received the highest non-response of all the categories, namely gender, age and race, whilst "Knowing your HIV/AIDS rights" received the lowest non-response rate of all the categories. The factor contributing to the highest non-response rate was age, whilst no significant difference between gender and race could be detected. The non-respondents for all questions were primarily of the age group below 23 years.

Figure 3.5: Percentage of respondents not answering question on HIV/AIDS rights

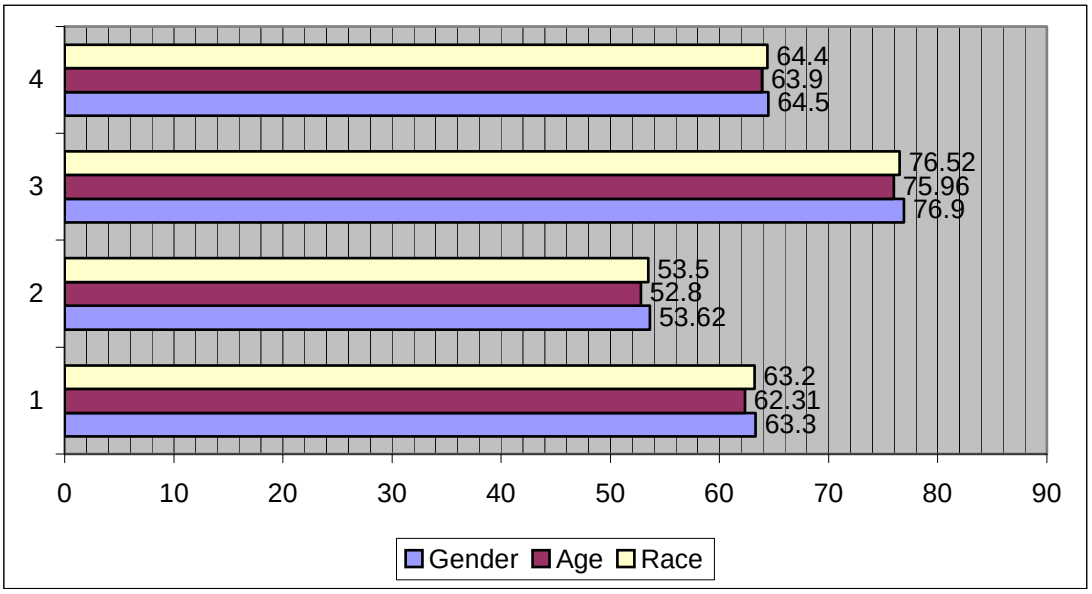


Where:

1 = Know your HIV/AIDS rights as a student 2 = Know your HIV/AIDS rights as a potential employee 3 = Know your HIV/AIDS rights in a personal relationship 4 = Know your HIV/AIDS rights as a member of civil society

Among those respondents who were able to answer the questions, no significant differences could be found between gender, age and race with regard to knowing their HIV/AIDS rights (see Figure 3.6). It is interesting to note that all three categories of respondents best understand their rights in a personal relationship, whilst their understanding of their rights as a potential employee was the worst. It seems that much could be done to improve respondents' understanding of their HIV/AIDS rights in all spheres of life, but especially in spheres that extend further than the personal.

Figure 3.6: Knowing HIV/AIDS rights



Where:

1 = Understanding rights as a student.

2 = Understanding rights as a potential employee

3 = Understanding rights in a personal relationship

4 = Understanding rights as a member of civil society

SEXUAL PROFILE OF RESPONDENTS

A total of 68,3% (n=1140) indicated that they had already had sexual intercourse. Only 31,1% (n=520) indicated that they had never had sexual intercourse (see Table 3.3).

Table 3.3: Sexual intercourse profile of respondents

		Frequency	Percent	Valid percent.	Cumulative percent.
Valid	1	1 140	68,3	68,7	68,7
	2	520	31,1	31,3	100,0
	Total	1 660	99,4	100,0	
Missing	System	10	0,6		
Total		1 670	100,0		

Figure 3.7 indicates that the Indian respondents appear to abstain more from sexual intercourse than the other race groups. As the sample size of this group is relatively small, no conclusive conclusions could be made about this aspect. The white respondents were more or less evenly spread between "no sexual intercourse" and "sexually active", with percentages of 47% and 53%, respectively. The black and coloured respondents showed a clear tendency to be sexually active, with percentages of 79% and 74%, respectively. There appeared to be some degree of relationship between race and the sexual activities of respondents.

Figure 3.7: Sexual Intercourse of different race groups

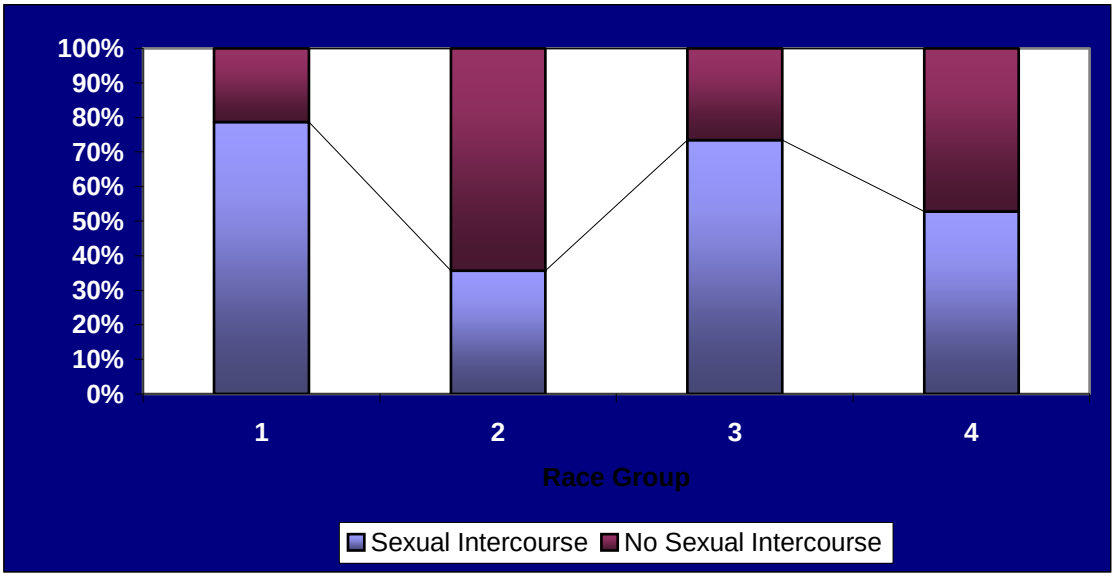
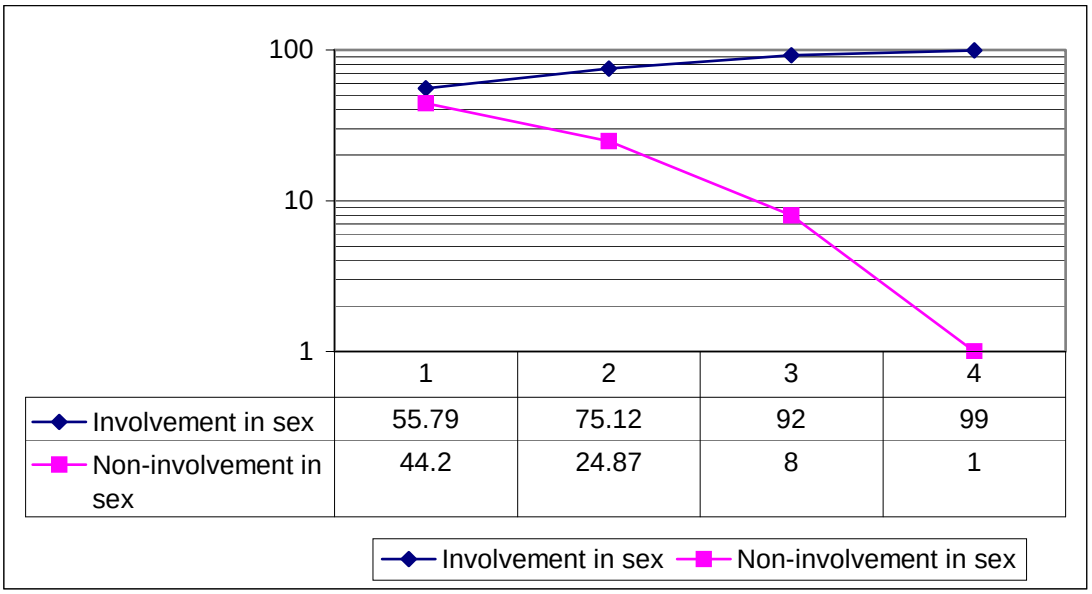


Table 3.4 and Figure 3.8 give an indication of sexual activity for the different age group respondents. It is clear that a positive relationship exists between sexual intercourse and an increase in age. On the other hand, an inverse relationship exists between abstaining from sex and an increase in age. Thus, the potential for sexual intercourse increases as respondents' age increases. One may deduce that the chances of having sex between the ages of 15 to19 years are moderate, whilst the chances of having sex when twenty years and older are extremely high.

Table 3.4: Sexual intercourse at different age groups

Age	Yes	No	Total
15-19	332 (55,79)	263 (44,20)	595 (100%)
20-25	625 (75,2%)	207 (24,87%)	832 (100%)
26-30	23 (92%)	2 (8%)	25 (100%)
31-35	3 (100)	0 (0%)	3 (100%)

Figure 3.8: Sexual intercourse at different age groups (logarithmic scale)



CONDOM USE

A total of 57,2% (n=955) of the respondents indicated that they had used a condom with their most recent sexual partner, whilst 11,3% (n= 189) did not make use of a condom. Figure 3.9 and Table 3.6 give insight into the use and non-use of condoms with the most recent sexual partner.

Figure 3.9: Condom use with last sexual partner

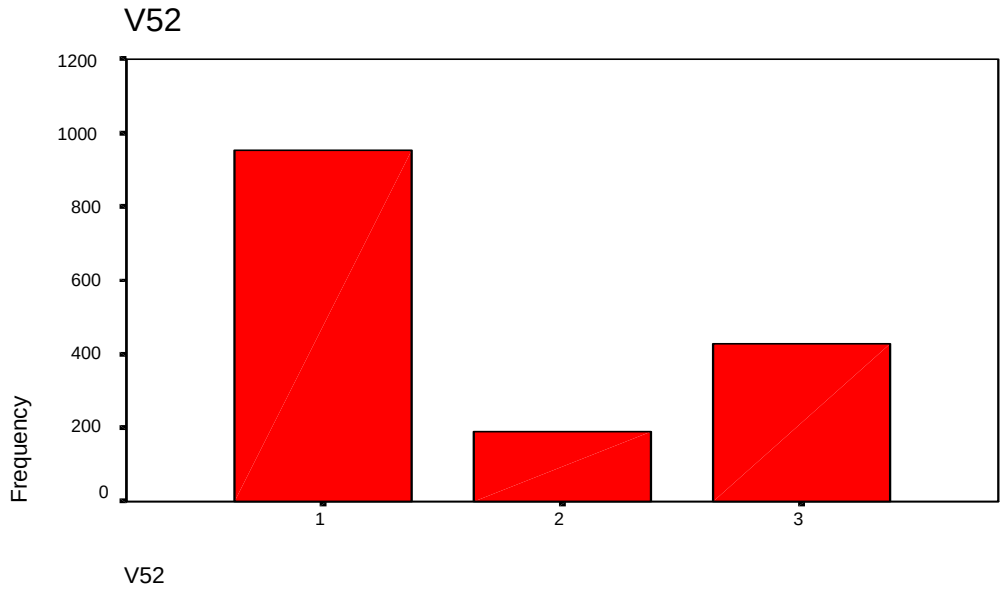


Table 3.5: Condom use with last sexual partner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	955	57,2	60,7	60,7
	2	189	11,3	12,0	72,7
	3	430	25,7	27,3	100,0
	Total	1 574	94,3	100,0	
Missing	System	96	5,7		
Total		1 670	100,0		

The percentage of condom users with last sexual partners is significantly higher than the condom use statistics provided by the Department of Health in 1998, as quoted by van Rensburg et al. (2002: 23) in Table 3.6.

Table 3.6: Condom use in the different provinces during 1998

Province	% Women (15-49 years) using a condom during last sex with any partner
KwaZulu-Natal	6,7
Mpumalanga	9,5
Gauteng	10,4
Free State	10,9
North West	9,0
Eastern Cape	6,1
Limpopo	6,4
Northern Cape	5,0
Western Cape	8,1
National average	8,2

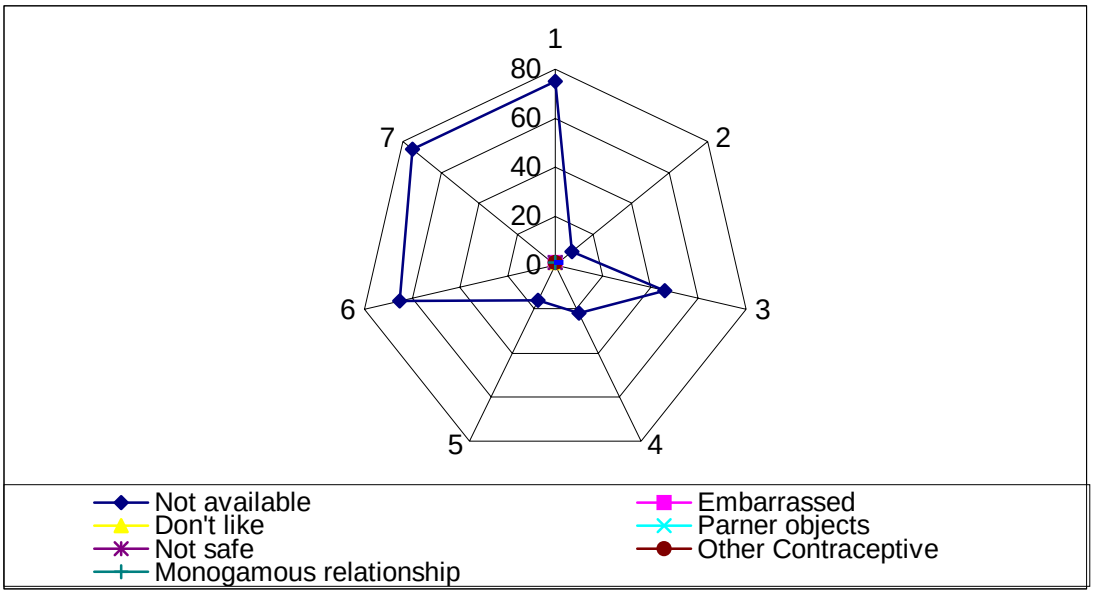
The differences between these averages may indicate that publicity programmes promoting condom use did indeed have an impact on changing the sexual behaviour in the population in that safer sex is being practised. On the other hand, the higher condom use amongst students may also be due to better access to information than the population, in general.

The major reasons provided by respondents for not using a condom, as indicated in Figure 3.10, are:

- Condoms were not available.
- I am in a monogamous relationship.
- Used other contraceptive.
- Don't like condoms.

One can speculate that it seems that respondents are not embarrassed to buy condoms, nor do they think that condoms are not safe, as suggested by Grobler (2000:39).

Figure 3.10: Reasons for not using condoms



Where:

1 = Condoms not available** 2 = Embarrassed to buy 3 = Don't like them*

4 = Partner objects 5 = didn't think it was safe 6 = Used other contraceptive**

7 = in a monogamous relationship**

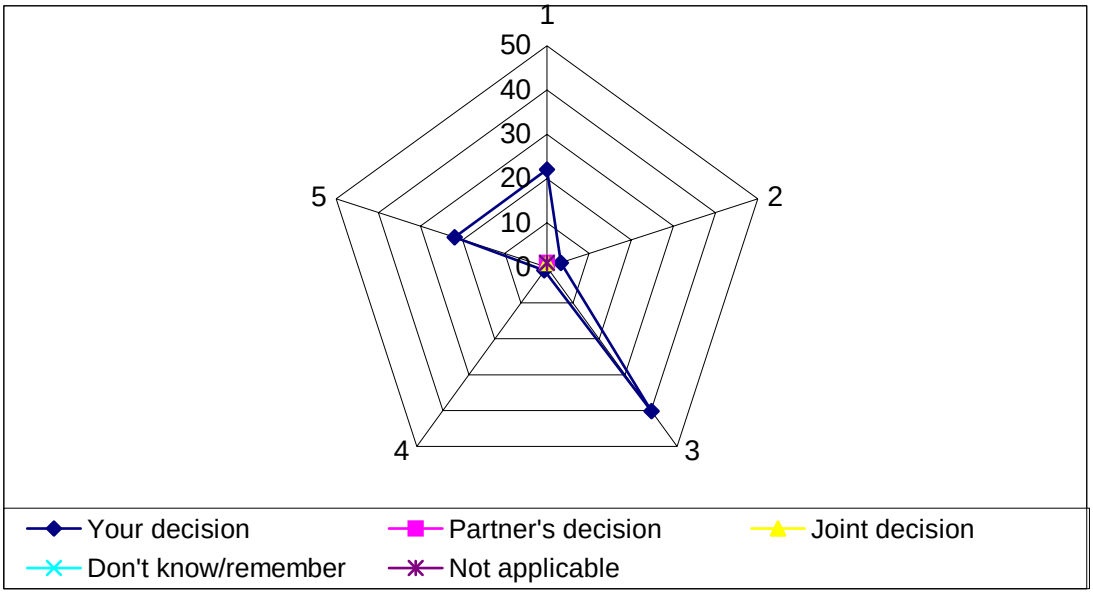
An aspect that was not researched is the regularity of condom use. In Namibia, Grobler (2000:45) found that 50% of the respondents used condoms inconsistently. This is an aspect that also needs to be investigated.

Amongst the users of condoms with their most recent sexual partner, the following results were revealed, as indicated in Table 3.8 and Figure 3.11:

Table 3.7: Decision node in condom use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	367	22,0	24,9	24,9
	2	53	3,2	3,6	28'5
	3	672	40,2	45,6	74,0
	4	17	1,0	1,2	75,2
	5	366	21,9	24,8	100,0
	Total	1 475	88,3	100,0	
Missing	System	195	11,7		
Total		1 670	100,0		

Figure 3.11: Decision node in condom use



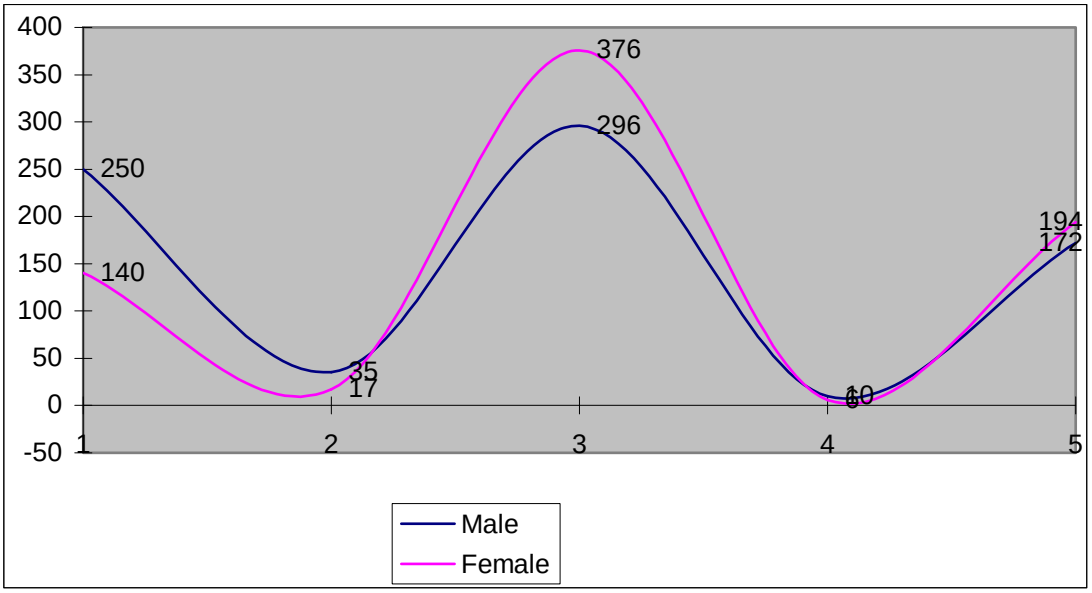
Where:

1 = Own decision* 2 = Partner's decision 3 = Joint decision***

4 = don't know/remember 5 = Not applicable*

The data revealed that condom use was primarily based on a joint decision (40,2%) made by both partners, whilst 22% of the respondents were of the opinion that they had made the decision. It is interesting to note that 33,6% (n= 561) of the respondents did either not answer the question or indicated that the alternatives provided did not explain their reasons for using a condom during sexual intercourse. Figure 3.12 indicates that female respondents had a greater tendency than male respondents to align condom use to their own decision. Both genders denied that the decision to use a condom was made by the other partner. One can therefore deduce that condom use has the best chance of being implemented if it is a joint decision of both partners. It is assumed that responses allocated to Value 1 (own decision) may share a high communality with Response 3 (joint decision).

Figure 3.12: Gender decisions on condom use



Where:

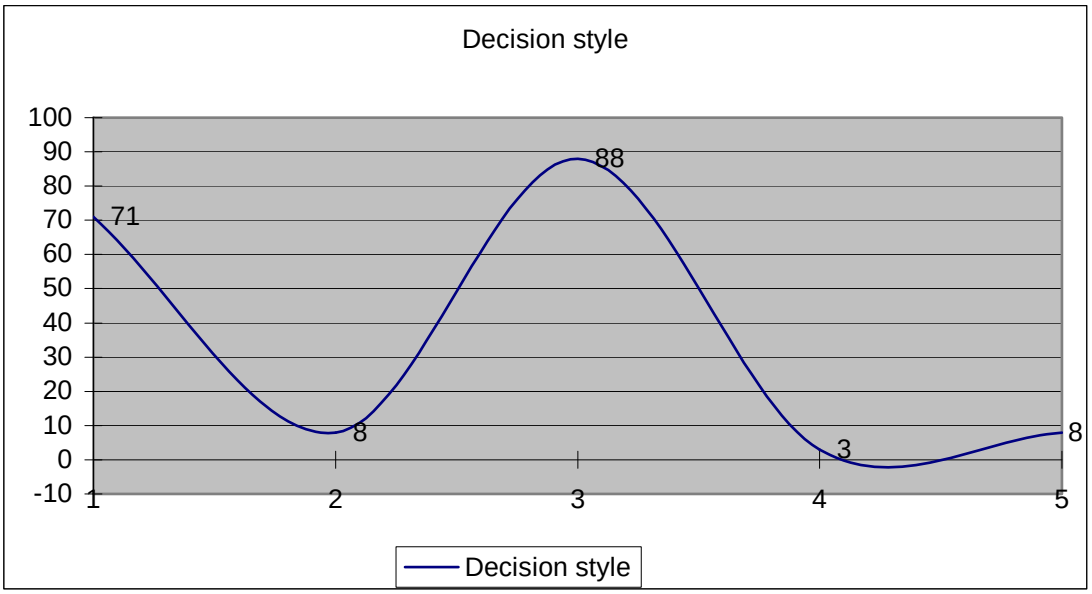
1 = Own decision 2 = Partner's decision

3 = Joint decision 4 = don't remember

5 = Not applicable

It appears that most persons who have sexual intercourse for money, or who have multiple sex partners, or who have homosexual relationships, or who have had sex without consent, or who practise casual oral sex, tend to use condoms. There is a smaller tendency to use condoms among persons who are in steady relationships and who have casual sexual intercourse. Thus, persons involved in high-risk sexual activities were more inclined to use condoms. The study also revealed that 89,78% (n=186) of the respondents who had multiple sexual partners indeed used condoms based on a joint decision or their own decision, indicating an understanding of the risks involved in multiple sexual relationships. This is indicated in Figure 3.13.

Figure 3.13: Decision-making style of condom users amongst multiple sexual partners

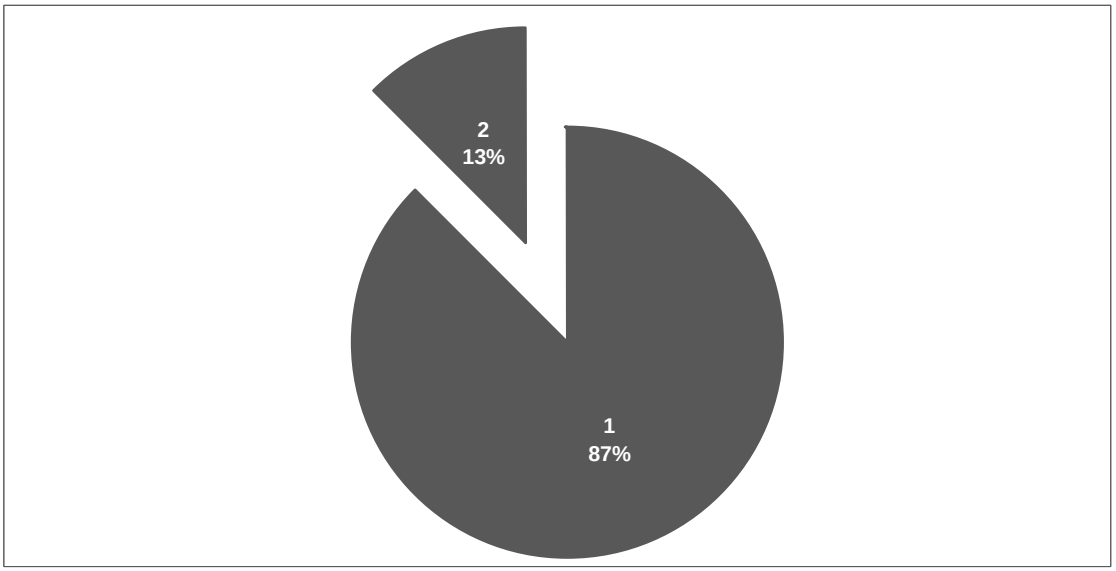


Where:

1 = Own decision 2 = Partner's decision 3 = Joint decision 4 = don't know/remember 5 = Not applicable

A total of 87% of the respondents (n=978) indicated that they found it easy to introduce the use of a condom into their relationship. Only a small proportion of respondents found it not so easy (see Figure 3.14).

Figure 3.14: Ease of introducing the use of condoms



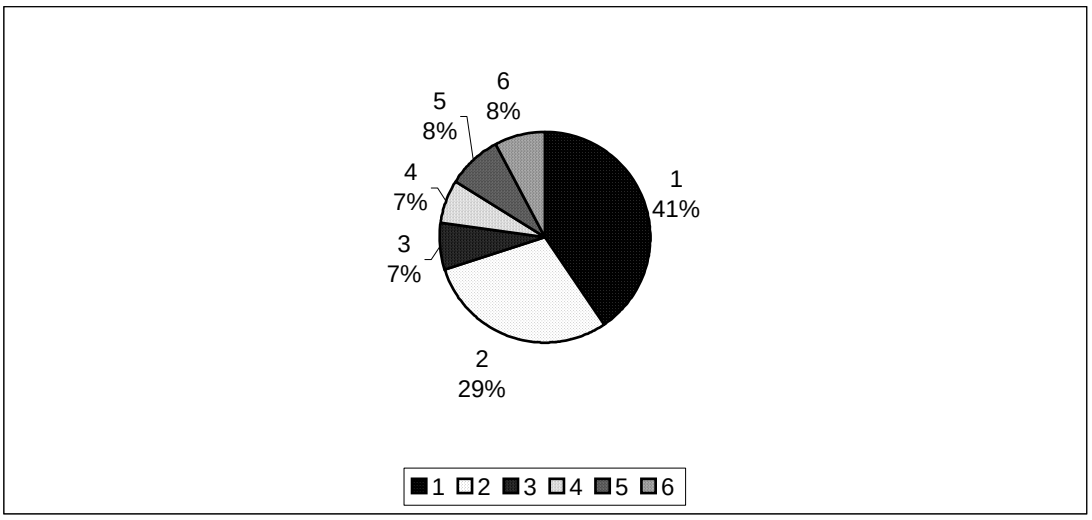
WHERE:

1 = Easy to introduce the use of a condom into relationship

2 = Not so easy to introduce the use of a condom into relationship

A total of 41% (n=1118) of the respondents indicated that they obtained their condoms from a pharmacy, followed by 29% (n=808) who obtained condoms from the Campus AIDS Consultancy Centre. Only 7% (n=181) used the Campus Clinic to obtain condoms. The rest of the respondents (23%) indicated that they obtained condoms from a private doctor, a family planning centre or from other sources. It is interesting to note that the majority of the respondents were therefore willing to pay for obtaining condoms. The relatively high percentage (29%) of respondents indicating that they obtained condoms from the Campus AIDS Consultancy Centre may be indicative of the trust relationship already established between the students and the Consultancy Centre (Figure 3.15).

Figure 3.15: Condom sources



WHERE:

1= Pharmacy 2 = Campus AIDS Consultancy Centre 3 = Private doctor

4 = Campus Clinic 5 = Family Planning Centre 6 = Other

Table 3.8 provides information regarding the use and non-use of condoms and how it relates to having experienced a sexually transmitted infection (STI). Three coefficients of associations were determined, namely the Phi coefficient, Cramer's V and the Contingency coefficient. No significant relationship could be found between condom use and experiencing a sexually transmitted infection. Table 3.5 indicates the insignificant associations. No evidence thus exists in this sample that the use of condoms reduced or had an effect on the transmission of sexual infections.

Table 3.8: Cross tabulation between condom use and STI

		V61: Experienced STI			Total
		Yes	No	Not sure	
V52: Condom use	Yes	4	856	53	953
	No	17	158	14	189
	Not Applicable	6	405	8	419
Total		67	1 419	75	1 561

Table 3.9: Association between condom use and STI

Association Measure	Value	Significance
Phi	0,143	0,000**
Cramer's V	0,101	0,000**
Contingency Coefficient	0,141	0,000**

ENGAGEMENT IN SEXUAL RELATIONSHIPS

It is clear from Table 3.10 and Figure 3.16 that the majority of respondents (58%) indicated they were not involved in any casual sexual intercourse, whilst 42% of the respondents indicated seldom to regular casual sexual intercourse. A total of 121 respondents did not indicate whether they had any casual sexual intercourse relationships. However, these figures seem to be an underestimate of sexual behaviour, since 60,6% (n=955) of the respondents responded, "yes" to condom use.

Figure 3.16: Engagement in casual sexual intercourse

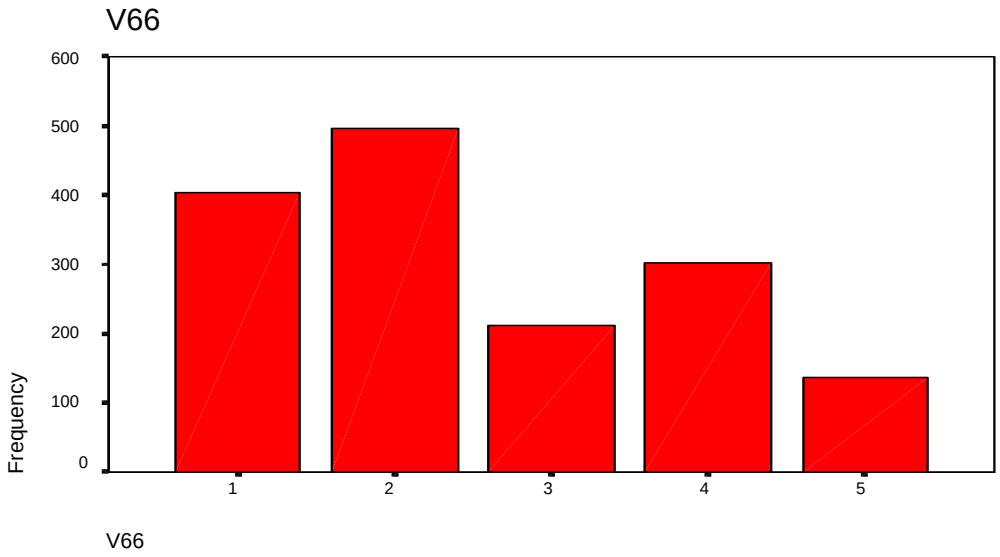
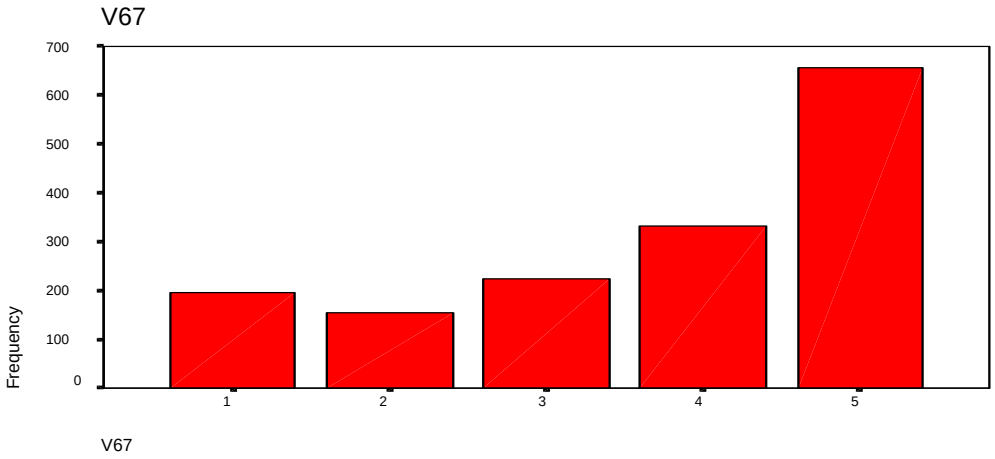


Table 3.10: Engagement in casual sexual intercourse

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	403	24,1	26,0	26,0
	2	496	29,7	32,0	58,0
	3	211	12,6	13,6	71,7
	4	302	18,1	19,5	91,2
	5	137	8,2	8,8	100,0
	Total	1 549	92,8	100,0	
Missing	System	121	7,2		
Total		1 670	100,0		

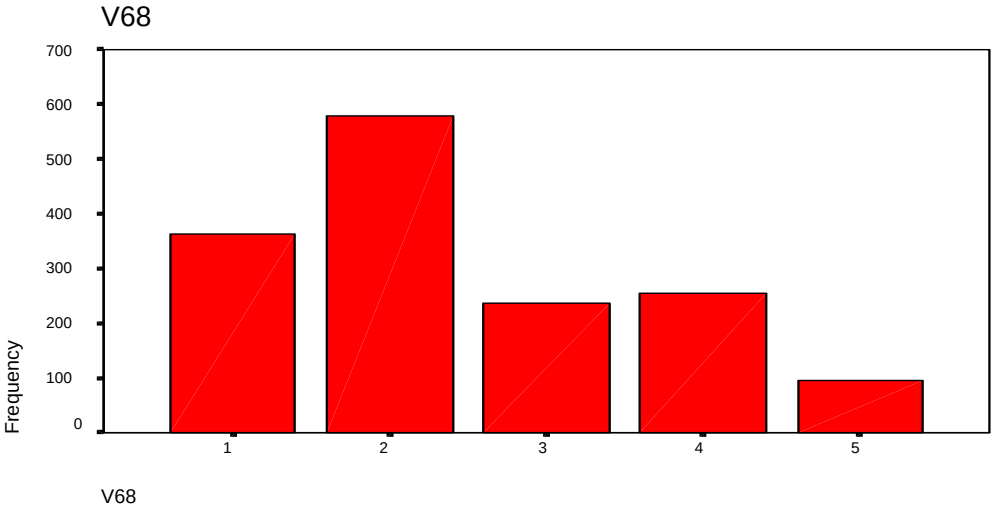
A total of 39,3% of the respondents indicated that they were in a steady relationship, while a total of 22,4% had never been involved in a steady relationship. A total of 33,1% of the respondents had, at some stage, been involved in a steady relationship. One may thus deduce that at least 72,4% of the respondents had, at some stage in their lives, been involved in a steady relationship.

Figure 3.17: Steady relationships



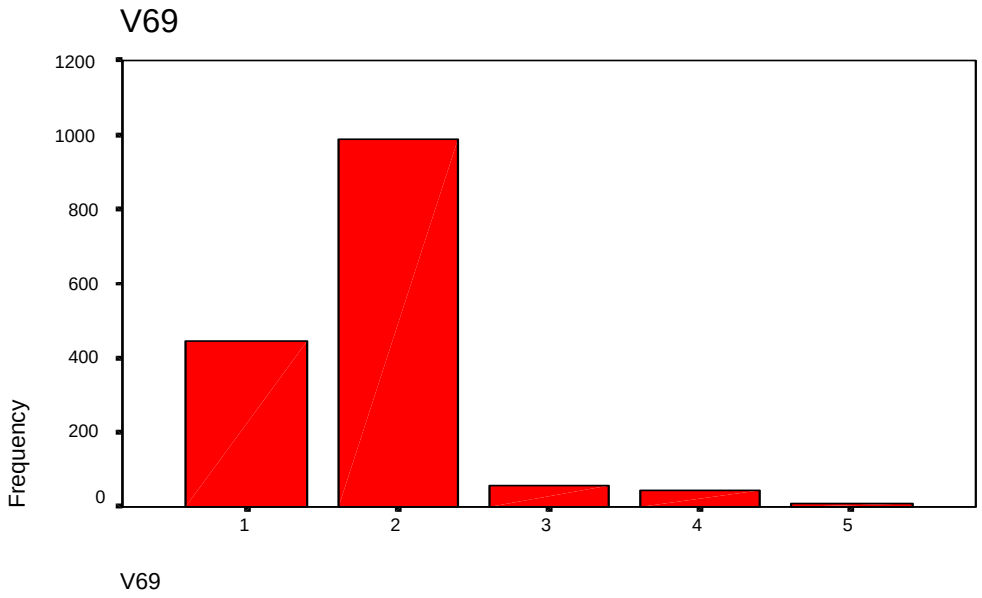
The majority of respondents (61,5%) – both sexually active and not sexually active – indicated that they did not practise casual oral sex. A total of 38,5%, however, indicated that they were engaged in casual oral sex activities. As 138 respondents did not answer the question, one may assume that this might be an under-estimation (see Figure 3.18).

Figure 3.18: Engagement in casual oral sex



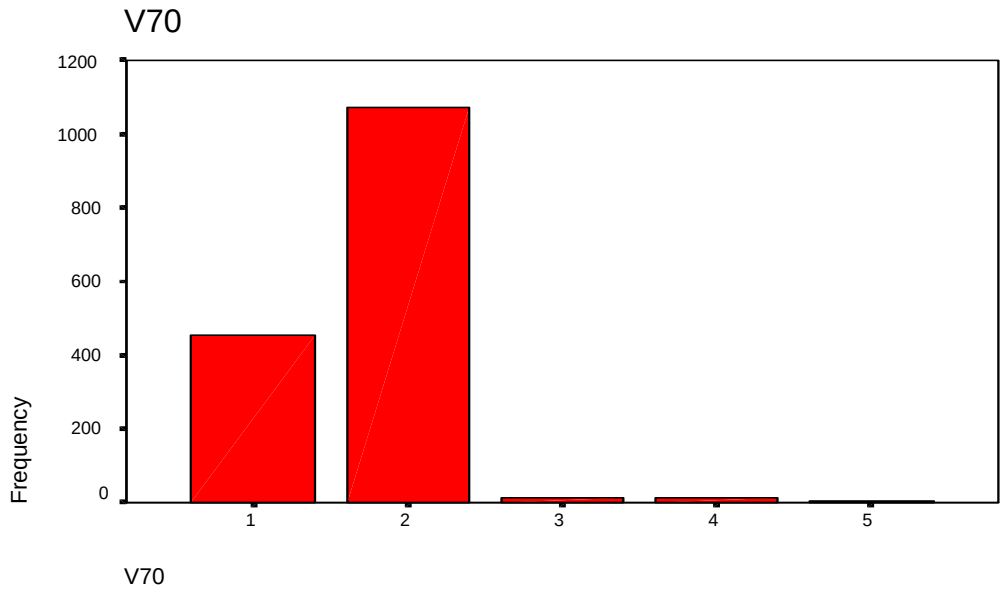
A total of 92,8% (n= 1436) of the respondents indicated that they never had sex without their consent. Only 7,2% indicated that at some stage in their lives they had had sex against their will. A total of 123 respondents did not answer the question.

Figure 3.19: Having sex without consent



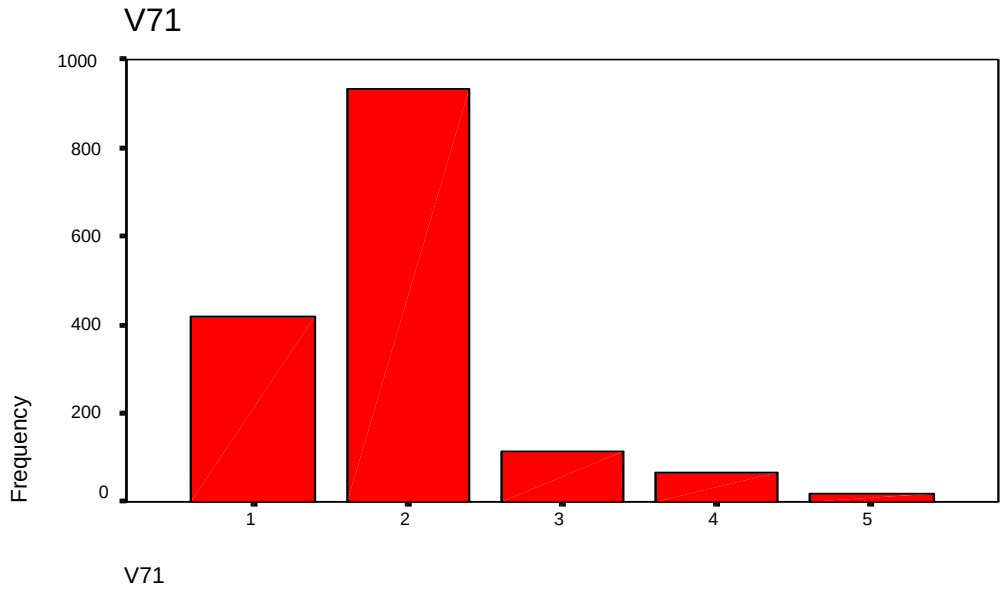
A total of 98% of the respondents indicated that they had never had sex for money or gift purposes. The remaining 2% (n=31) of the respondents indicated that they had. A total of 113 respondents did not answer the question (see Figure 3.20).

Figure 3.20: Engagement in sex for money or gifts



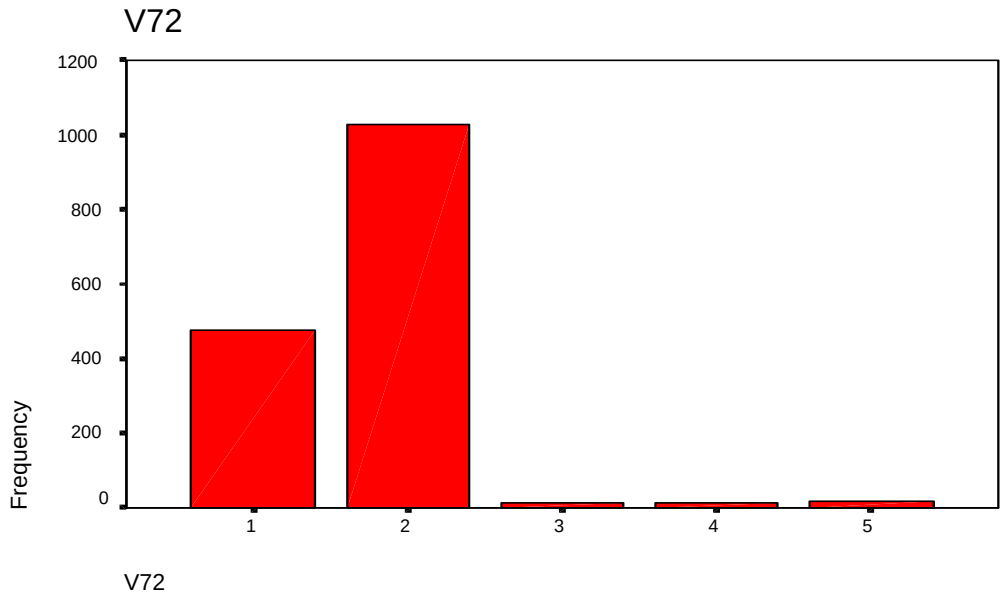
The majority of respondents (87,2%; n=1352) indicated that they did not have multiple sexual partners. The remainder of the respondents (12,8%; n=198), on the other hand, indicated that they were involved in poly-paternism (the custom to have more than one sexual partner). A total of 120 respondents did not answer the question.

Figure 3.21: Engagement in sex with multiple sex partners



The vast majority of students (97,0%; n=1502) indicated that they were not involved in any homosexual relationships. Only 2% (n=47) of the respondents showed an inclination towards homosexual activities. A total of 121 of the sample respondents did not answer the question.

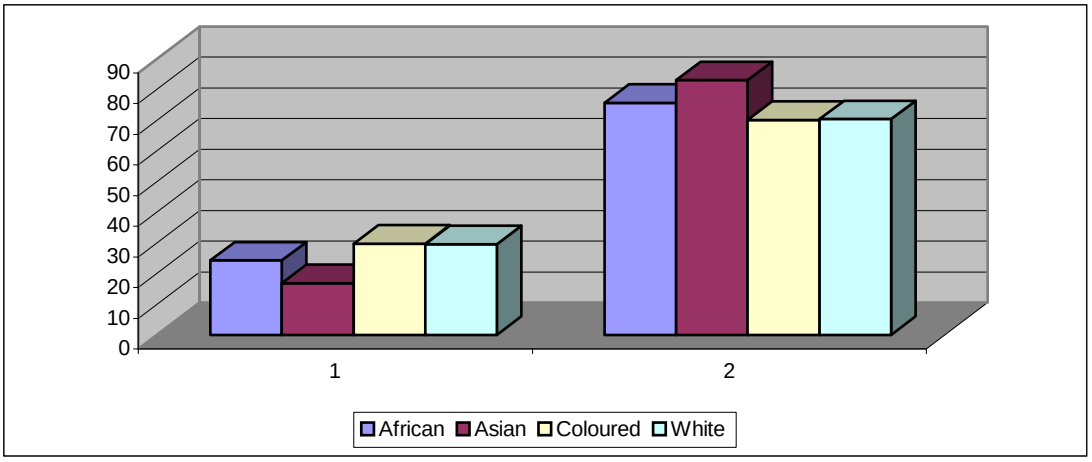
Figure 3.22: Engagement in homosexual relationships



TESTING FOR HIV/AIDS

The majority of respondents have never had an HIV test. Yet, a substantial percentage (26%, on average) of respondents in all race groups had had themselves tested, indicating a growing awareness of HIV/AIDS among the youth. A slight increase in percentages is also observed when the sexually active respondents are compared to the non-sexually active respondents (see Figure 3.23). This may be indicative of a greater awareness of HIV/AIDS among the sexually active respondents.

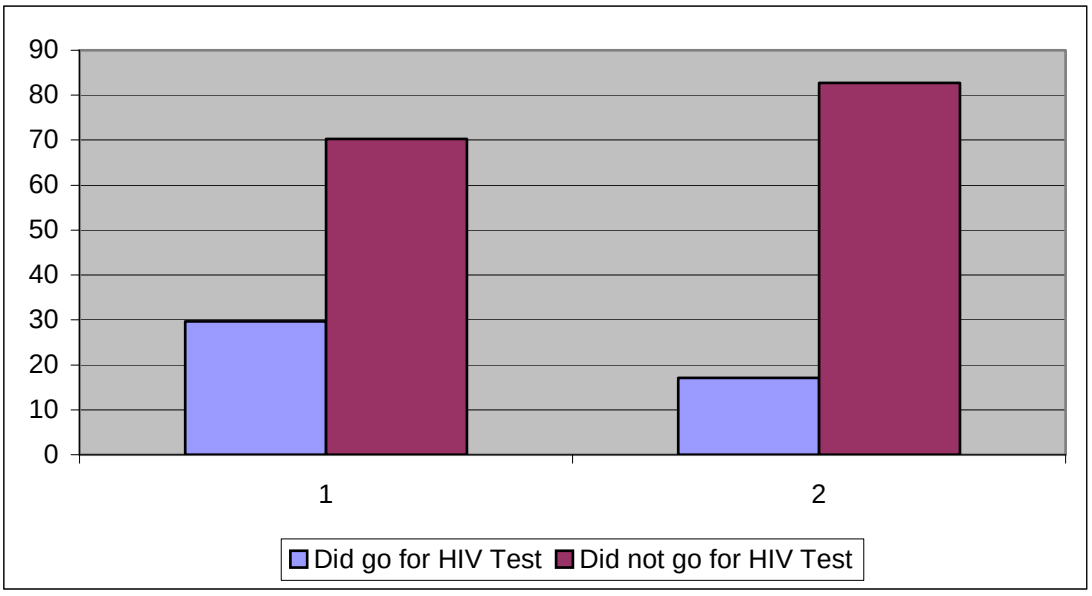
Figure 3.23: HIV/AIDS testing amongst race groups



Where: 1 = Respondents had had an HIV test

2 = Respondents had not had an HIV test

Figure 3.24: HIV/AIDS testing according to sexual activity status



Where:

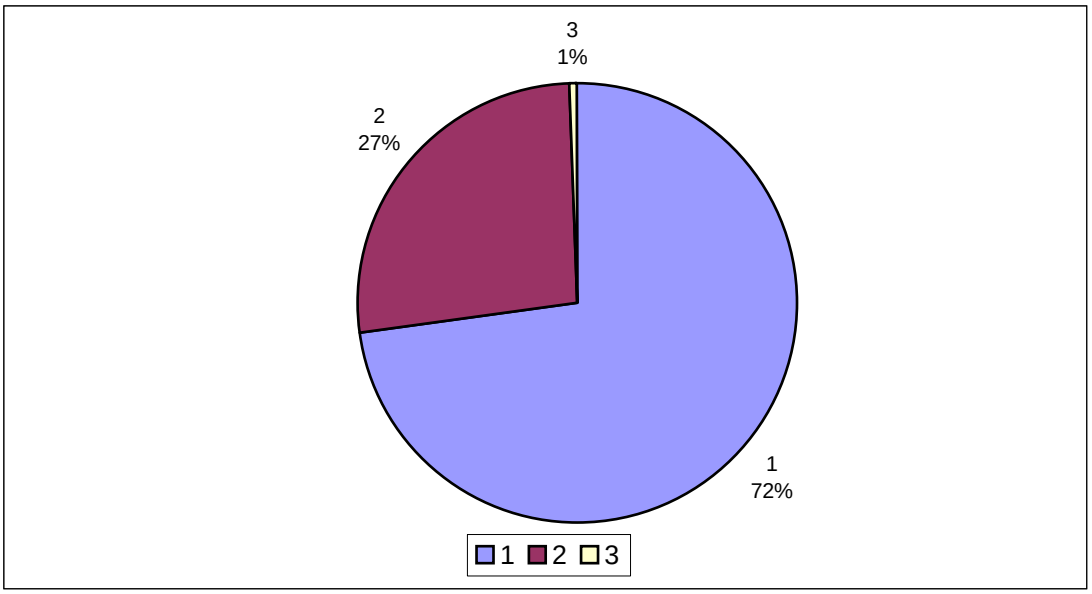
1 = Sexually active respondents

2 = Sexually non-active respondents

AWARENESS OF TECHNIKON PRETORIA AIDS CENTRE

A total of 72% (n= 1215) of the respondents indicated that they were aware of the AIDS Centre at Technikon Pretoria, whilst only 27% (n= 445) were not aware of the AIDS Centre. Only 10 respondents (1%) did not answer the question (see Figure 3.25). However, of the 72% respondents indicating an awareness of the AIDS Centre, only 17% (n= 209) had made use of the services offered by the Centre, as indicated in Figure 3.26.

Figure 3.25: Awareness of AIDS Centre at Technikon Pretoria



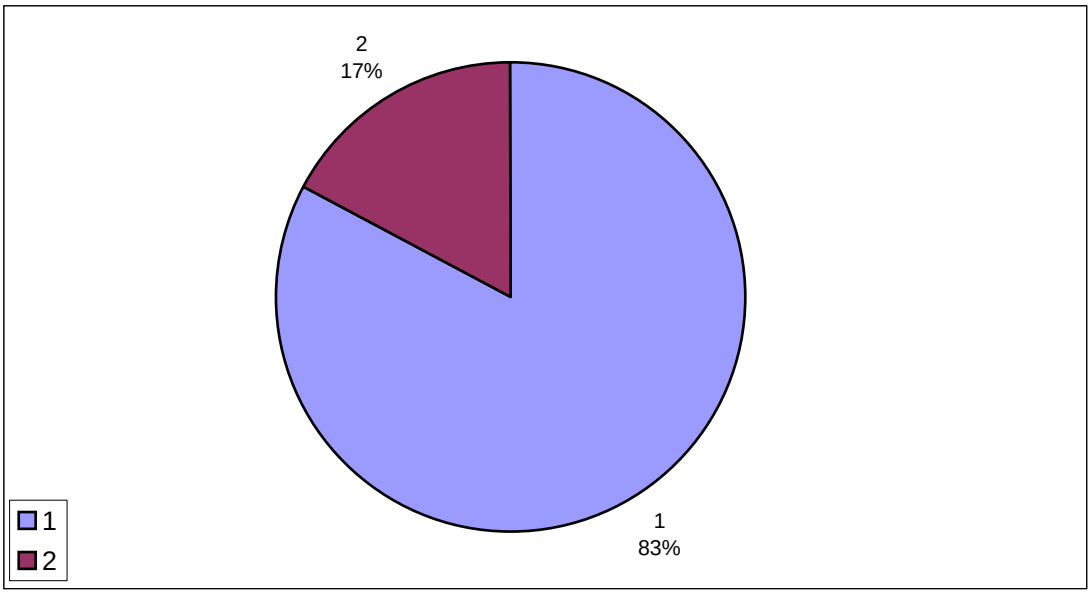
Where:

1 = Yes

2 = No

3 = Missing responses

Figure 3.26: Utilisation of the services offered by the AIDS Centre



Where:

1 = Made use of the services offered by the Centre

2 = Did not make use of the services offered by the Centre

CHAPTER 4: RECOMMENDATIONS

INTRODUCTION

It is far more complex to institutionalise HIV and AIDS than merely offering counselling services on campus or establishing research programmes. It involves recognising the fact that HIV and AIDS are threats to both the Technikon and society as a whole, and, therefore, it also challenges the relationship that exists between the Technikon and society (Crew, 2000:118). From this, the following questions arose:

- How can infected students be supported on and off campus?
- How can students who are not infected remain so?
- What can be done to minimise the effects of this epidemic on the Technikon?
- What can Technikon Pretoria do to prepare the students to take up their professional role in a society that is radically affected by HIV and AIDS?

CHALLENGES

Social cohesion

The concept of social cohesion refers to the degree of homogeneity in which a society operates as a social, ethnic, linguistic, religious and cultural unit. The larger the diversity of ethnic, language and religious groups, for instance, the smaller the chance that the society will function as an all-inclusive system, and, therefore, the weaker the level of social cohesion.

The Jaipur paradigm contends that societies with strong social cohesion and high median income will suffer less from HIV/AIDS than societies, such as those in India and **South Africa,** which are divided by cultural, ethnical and income-related disparities. The argument is then as follows (van Rensburg et al., 2002:35): "*Societies with high levels of social cohesion as well as high median income (UK, France, Japan, Germany and Sweden) will not experience a serious epidemic and will be best placed to fight the spread of HIV. Intermediate societies with high levels of social cohesion but inequitable wealth distribution and low median income (Brazil, Mexico, Senegal, North African countries) will see only a slow growing epidemic and will be less well placed to fight the epidemic. Those countries with low levels of social cohesion and relatively high incomes (India, Uganda, Rwanda, Sub-Saharan Africa) will experience a serious epidemic, but it takes time to develop. It is, however, countries with low levels of cohesion and relatively high incomes that face the most rapid spread in and highest levels of HIV infection. South Africa belongs to the last category of countries".*

RECOMMENDATIONS

The first recommendation deals with the development and implementation of an HIV/AIDS policy at Technikon Pretoria, entailing the following stages:

- Consultation about the content with Management, student councils and trade unions.
- Management to be clear about the institutions position in relation to the disease
- Establishment of an institutional advisory committee for HIV/AIDS.
- Committee gets expert advice and continuously refers to the Code of Good Practice;
- Development of draft policy that includes aspects such as non-discrimination, HIV testing, confidentiality and disclosure, a safe working environment, compensation, benefits, grievance procedures and the management of HIV/AIDS in the workplace.
- Consultation on a draft policy between Management, the trade unions and student councils.
- Development of the final policy document.
- Implementation of the policy.
- Ongoing evaluation of the policy.

Students at institutions of higher education fall squarely into the category of the sexually active population. This calls for the implementation of **life-skill programmes** to educate learners with regard to practising safe sex, their human rights, the treatment of sexually transmitted diseases, voluntary HIV testing, nutrition, etc.
However, to align the programmes of Technikon Pretoria with the National Integrated Plan (NIP), programmes should also implemented that focus on **mitigation, treatment, care and support** in respect of those students who are already HIV infected.
Funds should also been made available to **research the HIV/AIDS** phenomenon and its impact on the institutional community on an ongoing basis.

HIV/AIDS **knowledge transfer,** using the curriculum requirements of academic departments to ensure that the public, in general, and students, in particular, have access to correct information is also essential. A Department of Journalism could, for example, analyse articles in terms of the way the pandemic is spreading, or in terms of ethical writing such as judgemental writing and the implications thereof, or in terms of reporting myths. It may even be possible for academic departments to consider the subject matter from a career-role point of view and build the information into a global, regional, or community perspective.

Crew (2000:119) is of the opinion that institutions of higher education have to address the problem of HIV/AIDS through a ***collective response*** underpinned by a strong ***human rights ethos*** that not only recognises the legitimate concern and anger of infected people, but also deals with the more complex issues that a disease of this nature and magnitude raises. In this regard, Technikon Pretoria could do the following:

- Provide intellectual leadership that will develop an understanding of the pandemic in South Africa by introducing newly obtained knowledge into curricula.
- Develop a culture of critique that will address the role of the state, private sector, NGOs and educational institutions.

Create an increased awareness and institutional commitment to fight HIV/AIDS

It is of the utmost importance that senior managers make considerable mention of the AIDS pandemic in official communication publications of Technikon Pretoria. All key stakeholders need to recognise that both a community-based and a multi-disciplinary approach are required to reduce the HIV/AIDS incidence in South Africa and to increase the understanding of the phenomenon in the whole population, and, specifically, the youth.

Promote the idea of stable sexual relationships within the institution of marriage

According to Santorum (2003:9), empirical evidence indicates that the formal union between a man and a woman has unique benefits for children and society. Healthy societies are characterised by giving marriage special protection, since it is seen as the key building block to ensure a society's future.

Provide all new students with a brochure containing lessons for safe sex

The best model for students is a guide explaining safe sex principles. Students need to know and understand the dangers of sex and that it can ruin one's life. Yet, they also need to understand that a fulfilled life also contains sex. Therefore, they need a proper understanding of both sides so that if they commence with an active sex life, they will know how to go about it safely. One of the critical goals of lessons for safe sex should be to promote condom use – both male and female condoms – and not merely informing the youth about the availability of condoms. The brochure should be available in various languages and should keep cultural sensitivities in mind.

Promote an understanding of basic human rights

It is important that Technikon Pretoria should determine to which extent real or perceived discrimination prevails in the workplace and in other social settings on campus.

This is important for ensuring that the basic rights of the HIV-infected person are protected and understood by all students and staff members.

Support for human rights and legal issues

The research indicated a general lack of understanding amongst respondents about their basic HIV/AIDS and human rights. The activation of an advice centre operated by trained paralegals and supported by public-interest law is considered a major strength in the promotion of HIV/AIDS rights and human rights. The advice centre can serve both the student community and the broader Tshwane community.

Develop a communication strategy on healthy relationships

A successful sex life depends on many factors, including who the partner is, friendships, the family upbringing, and the people one mingles with or should avoid.

A communication strategy providing some guidance on social interaction and building healthy relationships (skills for life) could provide tremendous support to introduce healthy behaviour on campus. Technikon Pretoria is ideally positioned and structured to use live music and drama as a means of teaching people about HIV and AIDS. The presentations could be used as a means for starting discussions.

Determination of the youth's attitudes toward life-style alternatives

The researchers support the view of Campbell and Chela (1990:428) that if behaviour needs to be changed, it is important to be able to present the youth with choices and not to proceed with control strategies without proper knowledge of the lifestyles of the youth within the contexts of the communities from which they come.

Counselling service expansion

One may deduce from the research that HIV infection and AIDS prevalence will continue to increase on the campuses of Technikon Pretoria. This means that now, more than ever, HIV/AIDS needs to be looked at as a chronic disease in which patient management is important. It is clear that soon institutions will need to confront the need of students to access ARV therapy, and this not without its challenges. As Schneiderman (1999:8) indicates, for example, that if patients, who are on highly active antiretroviral therapy, including protease inhibitors, should miss surprisingly few doses, it could reportedly lead to viral escape and mutations that would result in drug resistance and ineffective therapeutic response. Side effects are common, which may not only include nausea, diarrhoea, and other discomforts, but also changes in habitués. Social support to patients may facilitate adherence to medication protocols. This would also set the tone for synergistic psychosocial and pharmacological treatments. This combination of therapy, both on intervention and standard care, may lead to improvements in the health care of HIV+ patients. The key areas in which the clinical psychologists and social workers could play a vital role are, amongst others, relaxation therapy, adaptive coping, social support, psychological appraisal and the patient's attitude towards health care, aimed at influencing the patient to medication adherence, at reducing the patient's distress, and at reducing risky sex and drug use.

Communication strategy:

- It is evident that HIV/AIDS is still associated with a large degree of stigmatisation. It is, therefore, important that special efforts be made to de-stigmatise the virus on the home front – in this case, at Technikon Pretoria.

- HIV-positive people sharing their personal stories appear to be a potent way of drawing attention to the virus. Therefore, it could be of value to document the stories of HIV-positive Technikon Pretoria students who are willing to share them.
- The underlying reasons for such a small number of respondents indicating that they would disclose their status if tested positive should be further investigated, since creating an environment in which people are comfortable to do so is but the first step in the process of disclosure.
- Students could be a valuable source in terms of devising communication strategies. Incorporating HIV/AIDS into the curriculum of students could add value to devising HIV/AIDS campaigns.

Reporting structures

The Manager of the AIDS Centre should report directly to the Vice chancellor or a delegated Deputy vice chancellor of the institution with a dual mandate to render staff and student services and should have as an advisory body an interfaculty committee that is representative of all faculties for research and curriculum innovation.

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